Your ultimate guide to the very best stuff for the CPC

AMSTRAD ACTION

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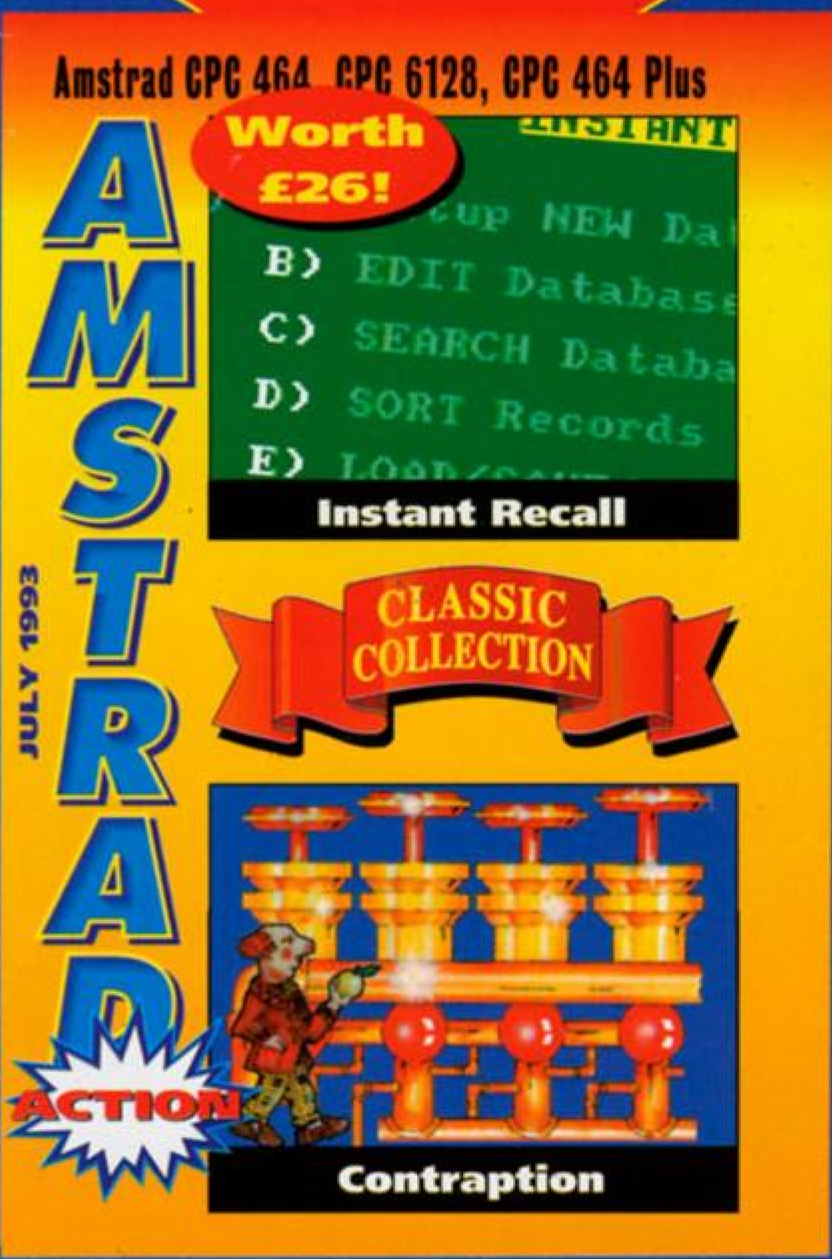


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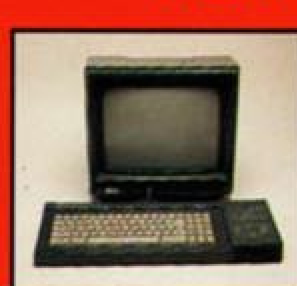
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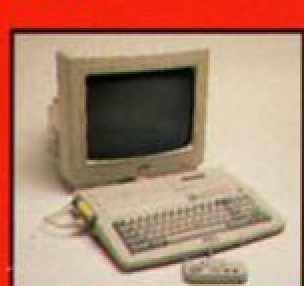
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Line u



Get back to your primitive roots – page 46.



He's dark. He's a man. He's Darkman – p 48.



Fun and games on the high seas – page 50.

Regulars

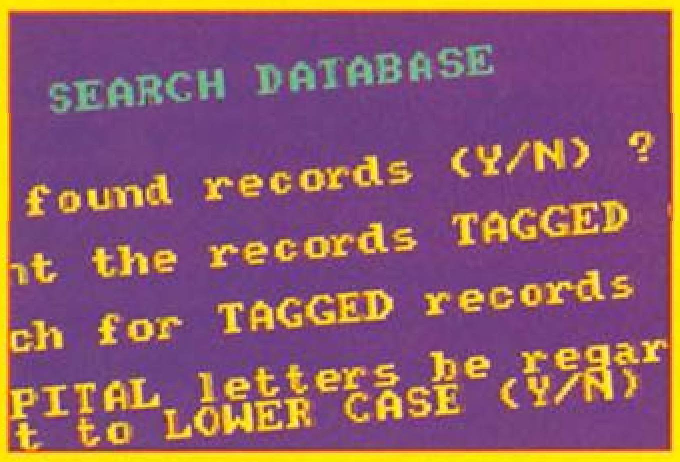
CLASSIC COLLECTION

And the hits just keeps on coming. This month's Classic Collection brings you two utterly fab bits of software. There's a superb database and a terrific platformer...

Instant Recall

1 Picture the scene: your record collection is getting a bit disorganised, and you can never find William Shatner's version of Lucy In The Sky With Diamonds (although, on balance, this is probably something of a Good Thing). Anyway, things get a little too much for you and you decide that some sort of index system is in order. Or maybe you're a competition addict and you want to keep track of all your entries so that you know when to start getting excited about the possibility of the postman bringing you some tickets to Barbados (hello, Mrs Jones of Coventry, we're talking about you).

But what should you do? How should you keep your index. Can your CPC help you? What you need is a database program. Have you got one? You jolly well have now, and no mistake.



Instant Recall is an utterly fab database program with all the usual editing and sorting facilities and you'll never lose track of anything again. Is that good news or what?

Whatever your hobby, whatever your job, a database is just the sort of thing you'll never think you wanted until you get one. Then you'll wonder how you ever managed to live without one.

Don't just sit there, read the instructions over the page and get yourself organized.

Contraption

2 Mmmm. This is going to be a tricky one. When it was released, this excellent platform game didn't actually have what you'd ordinarily think of as a plot. So, whereas we'd usually tell you the story and try to entice you into the game that way, we're going to have to think of something else.

But what can it be? We could tell you that you have to lead a crazy mad bonkers-looking professor person through a set of obstacles and problems. We could say that the obstacles and problems are all very pretty-looking mechanical things and that it's all going to be something of a challenge. Unfortunately, though true, this approach wouldn't be particularly exciting. We could say that if you play Contraption through to the end, you'll find the secret to eternal youth. But that, frankly, would be an outright lie.

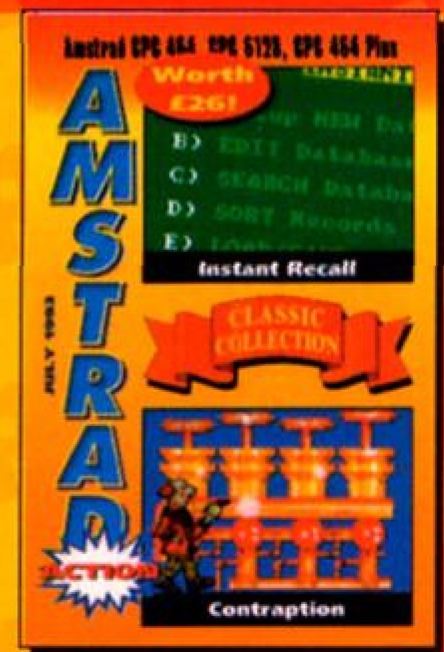


We're just going to have to say that Contraption is a really rather wonderful game. This is, at least, true (if slightly uninspiring) and then just leave you to play it for yourself and find that we're right.

So rip it off the cover, shove it in yer CPC and get platforming.

Just turn the page for all the details ➡ ➡



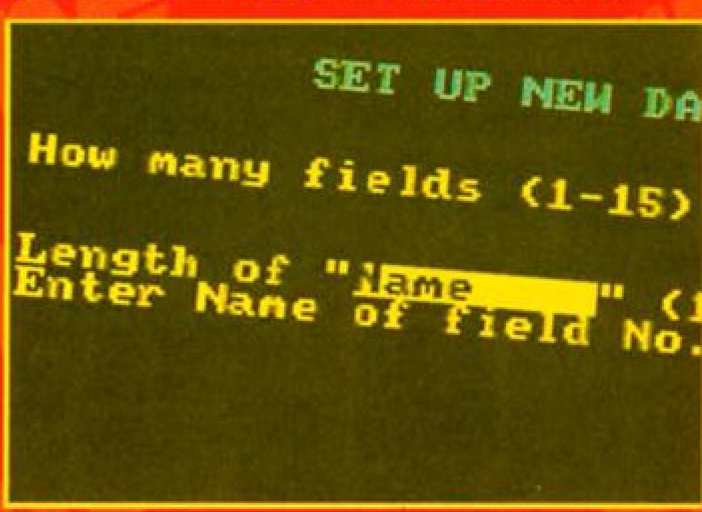


Instant Recall

Get your life together in a way that only AA knows how – with a lovely database!

You wanted serious software (you did, didn't you?), well, we've managed to track down a fully functional, high powered, and easy to use database for you! It's the package of a film as well, Instant Recall!

First off, for all those that haven't done this sort of thing before, we'd best explain just what a database actually is. Quite simply, a database is a program that emulates a filecard index system. You can set up a standard card (or a record, as we call it), with a number of information titles (or fields), and store information on that card layout. For instance, for an address system, the normal fields would be name, address, post code, phone number, etc.



Setting up your fields is very important – just ask any farmer, and they'll tell you.

Now, the beauty of having a system like this on computer instead of a pile of file cards is that on a computer database you can sort information, search through the entire information volume for the card containing particular information, update and edit info, and basically do with it what you want. The advantages are very much similar to using a word processor over a pen and paper, in that the computer angle allows much more flexibility.

Anyway, how do you use it? Right... When you first load it up, after the little credit screen (that, incidentally, you can press any key to bypass), you will come up against the main menu. This runs as follows:

A – Setup new database

In this part of the program, you specify the various field titles, lengths, and types of the information to be stored. Before you do anything else, it's important that you complete this section first, as you can't store any information without first specifying what information is to be stored.



Main menus, eh? They come to your country, and none of them have got jobs...

B – Edit database

This is the main data entry mode. It is under this option that you enter new cards (in our case, names and addresses), and you shouldn't have too many problems using the on-screen help system within the program.

It's also useful for editing existing records, re-arranging data, tagging (marking for reference) records, and the main bulk of data entry/manipulation operations. The menu here is fairly straightforward, and we'll go through that now. Bear in mind also, that at any time, pressing ESC will take you back to the main menu.

A – View current record
Simply look at a record.

B – Add a record
Make a new record, and add it to the database.

C – Amend current record
Alter information on a card.

D – Delete current record
Remove a card from the database.

E – Insert a record at current position
Instead of simply adding a record, this option allows you to insert it at a specific point in the information stack.

F – Replicate current record
If you want a record to be duplicated, maybe so you can change one piece of information on the card, instead of re-typing the whole thing, this is the option to use, really.

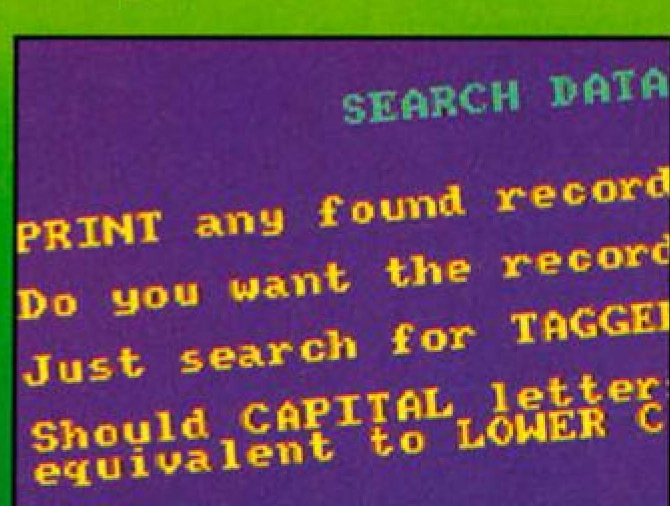
G – Go to specific record number
Simply move your attention to a different record.

H – Clear all tags
Remove all tags placed on records from

Memory

In case you're wondering, the ability to enter field lengths serves a very vital purpose in the memory department. The shorter your field lengths, you see, the more records you can store in memory at once, and the faster the whole package can run when shifting your data about.

However, if you don't think you're going to have a massive amount of data to store, feel free to have absolutely huge field lengths.



The only real drawback is the colour scheme on some of the screens (euch!)

searching, etc.
I – Output current record to printer

Well, it's pretty straightforward if you ask me!

C – Search database

Searching records is one of the functions that gives a computer database the advantage over paper. You simply enter the information to be hunted down, whether you want it printed or tagged, and off it whizzes!

D – Sort records

This option might seem a bit complex at first, but if you go into this simply, it's not too bad. You will be able to specify the field you wish to sort the records by, and whether you want the cards in ascending or descending order (in most cases, this means alphabetical or reverse alphabetical).

If you don't want to specify a second priority field, simply press return when asked for one, and the program will sort your files. If you do (if you want to sort the records by one field, and sub-sort them by another), enter the field number, and whether the sort is ascending or descending.



Well, you know what they always say – "A lemur in the hand is worth 23 in the bush"

E – Load/Save/Catalog

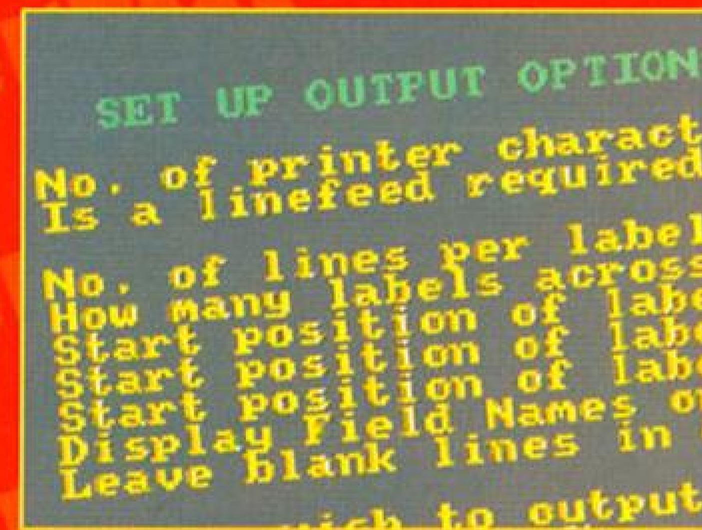
In other words, the general filing menu, through which you can load and save files, and catalogue discs.

F – Printer Options

After selecting this, simply answer the questions on your printer, and how you wish your data to be printed out (such as paper width, etc).

G – Modify database settings

Here, you can alter any of the information you entered through option A, if



And, as always, we here at AA we get the distinct impression they may well be right.

you made a mistake, or want to alter field length at a later date, if, for instance, you have a little more information to enter than you previously thought, and want to lengthen field lengths, or even add a new field.

H – Display database information

This tells you simply what's going on with the information you've got stored.

Don't forget, there's still a prize for the most unusual use of any business software. ●

Contraption

I'd like to begin by discussing, clichéd though it may be, the work of Sigmund Freud. I'd particularly like to discuss the subconscious. Freud believed that the subconscious mind, as a separate entity from the conscious 'waking' mind, could influence the thoughts and thought processes of the individual, without their being aware of its interference.

This subconscious mind, then, worked very well as a defence mechanism against knowledge or conclusions that may be mentally damaging, or overly distressing. One perfect example of this would be PE teachers, whose entire world would undoubtedly come crashing down around their ears if they finally realised that their huge misconception about the world, namely that young teenage boys live, breathe and sleep for intense physical exercise and red hot showers, was completely and utterly wrong.

So where does this leave us? Well, all that slightly scary Freudian stuff is a vital plot element in what you're about to read, as mild mannered Bernard, the government research scientist, was at work in his office.

Anyway, Bernard was sifting through mayonnaise consumption diagrams, and correlating them with edited highlights of the last national census (it's about to happen), when a thought suddenly struck him (any minute now). With a slight facial crumple of horrible realisation (wait for it),



The progammer was taken into very good care shortly after designing this level.



I quite agree... Silly you! I mean, you should no better than to tread on flowers! Tch!



Quick! Hurry up and get past the loading screen before the spiders get you! Aaargh!

he stammered in slight surprise "Nobody's in the least bit interested in any of this nonsense!" (I knew it! Sigmund was right! This is gonna be a real doozy!) It was from that point on that Bernard started to go slightly downhill.

You see, from the day he turned 23, Bernard had been working on mayonnaise consumption. He was now 47. Each year, he turned out a comprehensive guide on that certain eggy product, whilst receiving a blank look from the ministry of health (who commissioned the research), who filed his report neatly away, completely unread (Oh no! The double whammy!). It was this thought also that was slicing Bernards life very finely, and serving it with a certain oil based salad dressing.

Now, there is a lot of rivalry in the Foodstuff Research Institute that, though relatively suppressed ever since the mushy pea murders, really comes out in instances

Venture Forth

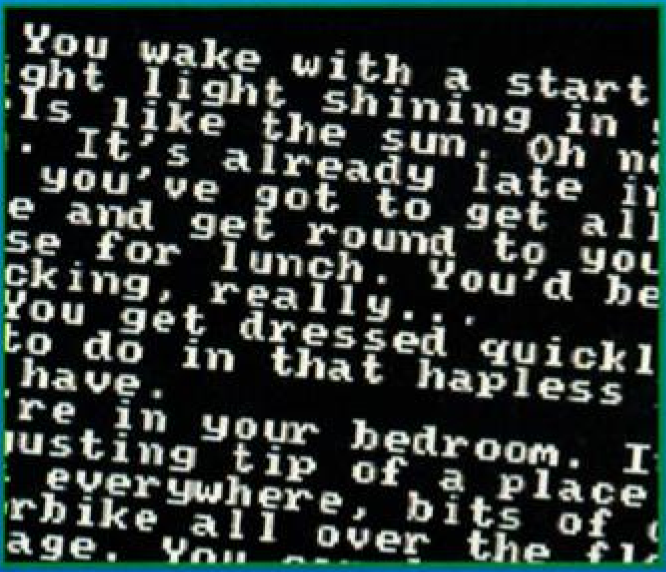
Venture Forth is our utterly fab series on adventure writing. We started last month with planning and mapping and this month we've moved on to deal with room descriptions. If all goes well, by the time we've finished we'll have designed a complete (if small) adventure game from scratch and you'll have a little bit of an idea how to go about creating your own.

Oh no, we're going to be in trouble now!

What we've done, you see, is written a program to go with the Venture Forth series, and, well, it sort of got too big to list in the feature itself, so we sort of put it on the tape. Oh well, it's done now.

The program, rather imaginatively, is called VFPROG.BAS and it's on side one of the tape, straight after *Instant Recall*. So just load *Instant Recall*, reset the machine, press CTRL and ENTER and the adventure thing will load for you. Hurrah.

It's there so that you can see a little bit more clearly how we've done the actual



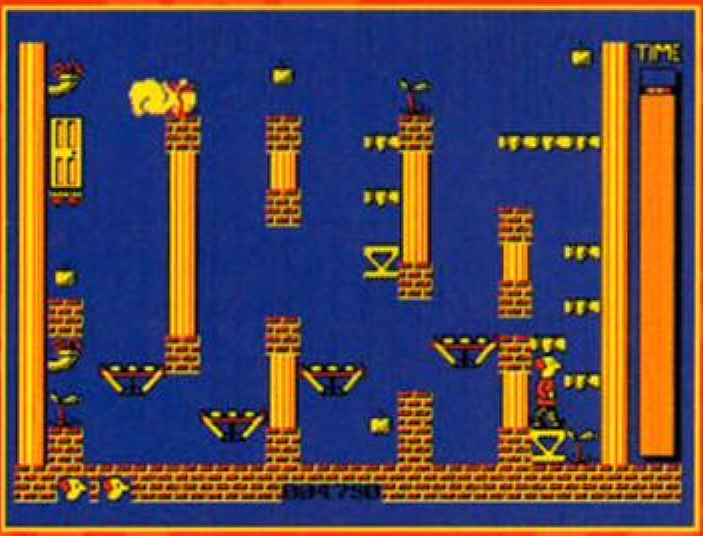
And now, live to you from the cover tape of the stars, Venture Forth!

programming bits, because we think that's important. And if you fancy trying it out for yourself, or even improve it a little, you can.

Can you do better?

If you do think of any improvements or if there's anything you want us to explain/cover in more depth/cover at all, then drop us a line at the usual address and we'll do our best to include it in a later bit of the feature.


I'm really not all that sure I know any good (or funny) apple jokes... (I'm so glad. – Ed)


Oh arr yeah – there's this apple walking down this street, right... (You're fired. – Ed)

like this. The quiet vying for the position of Head of Courgette Developments is always tempting researchers to take a few 'extra steps' to reduce the competition a little. And so when a fellow researcher finally goes fruit loop, it's always best to make sure they go under completely. So the apple research team made sure. I won't go into too much detail, suffice to say that Bernard returned from the coffee machine to find his room re-decorated in one of 57 varieties – the one that begins with 'M'.

To most normal people, this would seem like a mere prank, but to Bernard, this was definitely not the case – if not for the fact that he was never really all that well humoured (his wife and children will testify to that), for the fact that the liquid we are so repetitively reminded not to save for the salad was not on Bernard's list of things he most wanted to see right now.

I think we can safely assume the mix of hatred, anger, and despair flowing freely from Bernies mouth. Revenge. But how? Apples – I'd like to see them research without any material! It'd be like a computer magazine without a screen grabber!

And so, evil Bernard set about his dastardly deeds – removing all apples from the building. He found instructions on keys and stuff in the program, and went round collecting all the apples he could find. The Apple team had nothing to do, since Bernard had made off with their stock, and took out a subscription to *AA*.

Bernard, of course, was taken into care shortly after his funny turn, but not before having his stomach pumped (in case you were wondering what he was doing with a building full of apples) and his fingers prised out of the office ceiling (apples contain lots and lots of natural sugar, you know).

So why is it called Contraption? Well, the mind is a strange and terrible thing...

If you're not sure what you're doing, start here.

Just pop the tape into your machine, making sure it's rewound to the start of Side 1, and then press CTRL + ENTER (or type RUN""), then press any key and the tape will start loading.

Within a few moments you get a menu screen. Choose the program you want using the Spacebar, then hit the RETURN key.

- Note that none of the programs need be loaded directly from the main menu. They can all be run from BASIC. The menu lists them, but you must quit back to BASIC to run them. (Use the RUN"(filename)" command.)
- If you have a disk drive either built into your machine or plugged in, you will first have to type |tape to switch the computer to tape loading. You get the | character by pressing SHIFT+@. Then just proceed as normal.

Oh my word, the tape won't work!

We go to great lengths to make sure that our covertapes work properly. However, if you still have difficulty, try this:

- Loading at several different volume levels (if you're using an external tape recorder)
- Cleaning the tape heads. This can be done with any commercially available cleaning kit
- Adjusting the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Turn it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.
- Tapping the cassette gently against a table edge – the spools may be sticking or jammed.

If you still can't get the tape to load then send the tape, along with a brief description of the problem and a stamped sae to:

AA94 Covertape Returns, Ablex Audio Video Ltd, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

Psst! Want a disc version?

The covertape contains its own tape-disc copying program. To transfer the programs to tape, simply follow the instructions on the tape.

- 464 owners with external 3-inch drives will have no problems, but 6128 owners will need a cassette player with a REM socket. Stopping and starting the tape manually is difficult.
- 6128 Plus owners who've had their machines modified to load from tape can transfer the programs to disk, *but must rewind to the start of the tape again before the transfer starts.*

You can also order a disk version of the covertape from our duplicators, Ablex. Snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 to:

AA94Disk Offer, Ablex Audio Video, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

Please don't return tapes to the AA office. Thanks

Disk 94 Token

Amscene

All the CPC news that's fit to print. Probably.

Oh, hello



I was sitting at my desk the other day, minding my own business, when someone wandered by and asked me which issue we were working on. "Number 94," I replied.

"Oh," he said. "So you'll be thinking about number 100 soon, then?"

And he was right, we shall. We'll be one of the few fun computer magazines ever to reach issue 100 (if, indeed, any others have – we ought to research that) and we're going to make it as special as we can. So if you've been reading the mag for a while and you'd like to share any memories with the rest of the readers, then drop us a line – we'd love to include you in our celebrations.

Down Under

We've just received information on the Sydney Amstrad Computer Club who, as you've probably guessed, are in Australia. They've got all the usual user group benefits and schemes, and are completely dedicated to the CPC.

You can find them on **02-5609487, and 02-6617573.**

Aussie readers should also check out this month's Reaction pages for some details of a planned new fanzine that someone's planning to do just for you.

Thanks Pete!

All you Plus owners who've been weeping silent tears into your pillows can thank Peter Campbell for an incredibly useful nugget of info: Though Plus owners cannot use ROMDOS on their machines in conjunction with AMSDOS, they can use RAMDOS+ under CP/M to access high density discs.

Apparently he discovered that while he was messing about one day. Thanks Peter – this should help quite a few frustrated readers out.

Presto PD (again)

We've mentioned this elsewhere, but it's probably worth repeating here.

Presto PD, the library with the, erm, most, has just announced two new products. First up is *IFFCon*. This is a package that converts IFF picture files (Amiga, Macintosh, etc) to CPC format. Next, there's *DOSCopy* – a package that transforms MSDOS files into AMSDOS format, and vice versa. Both titles are at 25p per side, so you should be able to get both of these on one disc or a mere 50p! Oh yeah, you can also buy 3" discs from them at £1.75 each. Find Presto at **58 Graigluyd Road, Cockett, Swansea, SA2 0XA**.

Life, huh?

It's with a tear filled eye that we must bid a fond farewell to a long-standing computer supplies company, MJC Supplies, who supported not only the CPC but the Amiga, ST, PCW, PC etc.

The situation with orders is as follows: any orders for which cheques have been cashed will be filled, no matter how long that takes. If your cheque wasn't cashed, however, the odds are it never will be.

It's unfortunate to see a company as good as MJC suffer, but these aren't good times for any businesses. Cheers, chaps, we'll miss you.

Siren news file

We've been talking to Simon Cobb of Siren Software quite a lot lately (we forgot to send his 3.5" disk drive back – oops) so we've managed to find out quite a bit about what's going on up there in Manchester.

For a start you'll get a free RS232 Serial interface and cable (worth a couple of pence short of 70 quid) with every Amstrad NC100 Notepad you buy.

The standard 3.5" drive (with all the bits you'll need to get you going, including RAMDOS) has tumbled in price to £59.99.

And ROMDOS XL version 4 has just been released at £29.99 on disc or £39.99 on cartridge (that's a single socket ROMbox cart, not a Plus-type cart).

Evidently the offers close on 1 September 1993 and you should speak to Simon Cobb on 061 724 7572 if you want to know more.

And that's shallot. Or something.

Hassle-free AA buying

...is just a moment away.

The dog ate your best shoes and, when you finally managed to get down to the shops, they'd sold out of your favourite magazine. No problem, fill in the form.

MAG*SAVE

Please may I have my very own Amstrad Action?

Dear Newsagent, could you please order me a copy of *Amstrad Action*, starting with the August issue, out on July 22nd. *Amstrad Action* is published by Future Publishing, and you can order it from your wholesaler. Thanks.

My name...

My address...

....

....

Micro Design 2

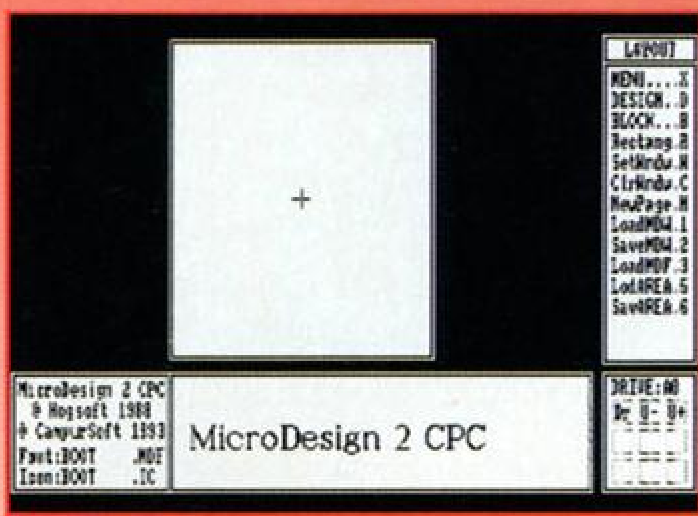
Campursoft ■ 041 554 4735

Tim Norris takes a look at the preview version of something that could change the face of CPC DTPing.

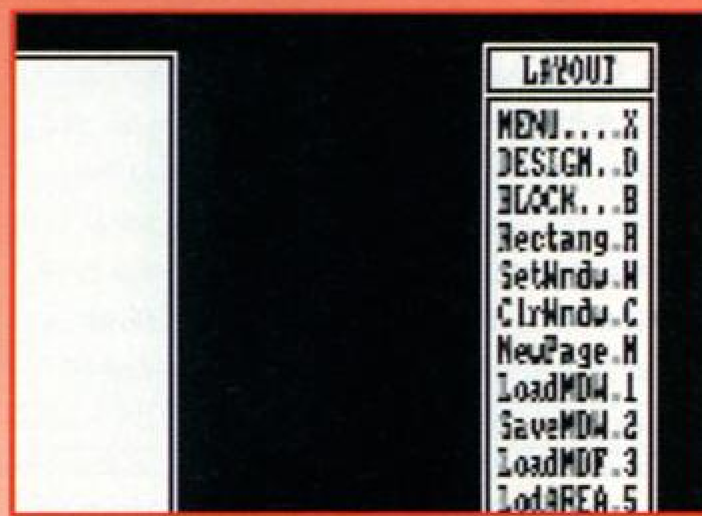
A few years ago a program arrived that set the PCW world humming with excitement. It was *Micro Design 2* and it wasn't really the sequel to *Micro Design*. The original had been a graphics program for designing electronic circuits and *MD2* was the hottest ever desktop publishing program the PCW had ever seen. Now, thanks to those nice people at Campursoft, *MD2* is about to arrive on the 128k CPCs.

We've only seen the Beta test version where only some of the features have been implemented, but it already looks rather fab.

The finished program will have full page design capabilities, allowing the user to import graphics and text from other programs or to create them from within *MD2* itself. There's quite an impressive-looking set of graphics tools and a comprehensive typesetting function.



As a preview feature, the bit at the bottom says 'Micro Design 2' in your chosen font.



There are plenty of tools to choose from and they're all accessible from this menu.


Graphics can be imported from the PCW very easily. This is part of a larger drawing.

It doesn't look as if any but the most basic of word processing facilities will be included, but text imported from outside can be typeset in a number of character sets (fonts) with full user control over character size and spacing as well as line spacing. Graphics functions include the usual shape drawing as well as fill, paint, and zoom (which allows half-pixel editing).

If your friend uses *MD2* on the PCW you'll be able to import files created on their machine (.MDA files) provided they're not too big, as well as files from *Stop Press*. As with most DTP programs it works best with a mouse, but I tried it without and it's almost as easy to use.

MD2 deals with the page as a whole, unlike many DTP systems which treat text and graphics separately. Once text is typeset (ie once it's been flowed onto the page) it becomes part of the page and can be edited only as graphics, not as text. So if you spot an error in the text once it's on the page, you have to remove the text, edit it, and then flow it back onto the page again. One thing that will certainly be impressive, though, is the way *MD2* flows text around pictures.

I'll have to wait until we get hold of the finished version and run some comparisons with the competition before I rave too much but, at the moment, it's looking as if *MD2* is going to be well up there with the best of them. We've noticed something of a leap in the number of fanzines out there and there's no getting round the fact that a lot of them could do with a bit of pepping up, design-wise. There's no way of knowing, yet, whether *MD2* is going to be the program to help do that, but it's certainly going to be one of the major contenders. ●

SafeSoft Disc Archiver

Save time, space, and money with SafeSoft's first product in the CPC market.

Have you got a 3.5" disc drive? If you have, the odds are you've got some software that only runs from the A drive. Or maybe you run a PD library, and arrange your disc collections by disc sides? Whatever the weather, we may have found a utility to suit your needs, in the way of the *SafeSoft Disc Archiver*.

This is probably the first package of its kind ever seen on the CPC (or any other machine come to think of it), though it evolved from a very well known idea. For years now, you've been able to get hold of programs that create an image of a disc and save it out to tape. The philosophy behind this was that as discs cost around £3, and tapes cost 50p to £1, you could save money by storing discs that you didn't use all that often, wiping the disc, and using it for something else, retrieving the image from tape when the programs were next needed.

So what we've just received is along those lines, only it can archive sides of 3" discs onto a 3.5" disc, fitting (at a minimum) four 3" disc sides onto one high density (800k) 3.5" disc. So what's the advantage? Well, there are three:

- Faster storage and retrieval. Obviously, if you're archiving with tape, it'll take about ten minutes, whereas using a disc is a matter of retrieving a whole side in under a minute.
- Less errors. The other large advantage is that whereas using a tape means rewinding and fast forwarding around several read errors, information on disc is a lot less difficult, and a lot less easy to damage.
- Cheaper medium. OK – A blank tape large enough to archive two sides of a 3" disc will set you back around £1. A blank 3.5" disc large enough to archive four sides of a 3" disc will cost around 50p (if you know where to look), or at most £1. This means that storage rates have doubled for the same price, or maybe even quadrupled.



Lots and lots of lovely onscreen help to get you started without reference to a manual.



And lots and lots more onscreen help while you're storing your precious information.

Anyway – enough of singing the praises of using such a package, and it's about time we took a look at the software itself. When you first load the package, you're presented with a main menu, from which you can select to catalogue discs (in both A and B drives), and compress/retrieve discs. So after a little mucking about, I found a reasonably chunky disc to compress, and got on with it.

When the thing starts archiving your disc, there's not really much to say. You're asked for a filename, and it just whirrs a little, and starts archiving. You can see a track counter to let you know how far through the disc you are, and then, lo and behold, there's a file on your 3.5" disc! That was easy enough!

Of course, the true test comes when retrieving the disc. So I found a blank disc, and set to work de-archiving. The first thing that happened was the program worked out it didn't like the disc – it was the wrong format (I was trying to write a DATA format image on to a SYSTEM format disc. I was asked whether I wanted to re-format the disc, to which I gave a hearty yelp, and pressed Y. The program then showed me a track counter, and recreated the disc I had archived.

As a package, it works. It's as simple as that. It does the job it set out to do. So I you feel you've got a need for the *SafeSoft Disc Archiver* (and I think quite a few people will have), rush out and buy it, as it really will come in handy. ●

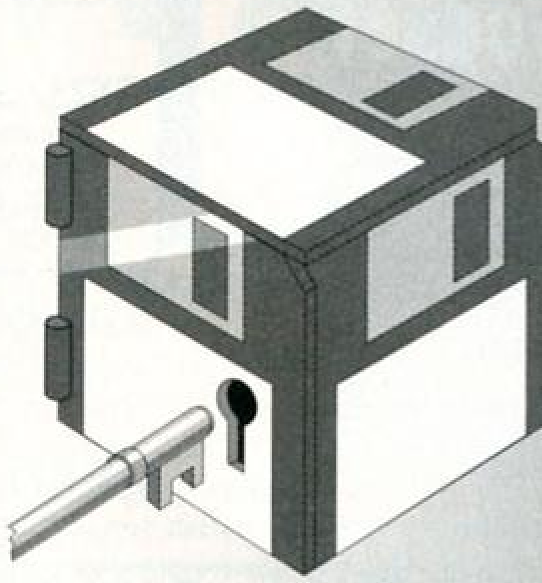
Be Careful

A word of warning – in order to run this package, you will already need a high capacity disc system, such as *ROMDOS*, *MS800*, *S/DOS*, etc.

Compression

Though the claim to fame may be to store four sides on a 3" disc onto one 3.5" disc, due to the inbuilt compression system, the package actually managed to fit the test disc into a 140k, as opposed to 180k. This is not a uniform compression rate, the package just tries to crunch the data length where it can. All the same, it's a pretty nifty little addition.

Contact



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Simply the BEST

Reception halls full of people gather around candlelit tables as Simon dons his tuxedo, and shuffles a pile of silver envelopes... The Sugar awards are about to begin.

Over the years ***AA*** has reviewed a lot of games, serious utilities, and hardware. You've read a lot of people giving a lot of opinions on a lot of stuff.

It's time to sort it all out. So now, live from Hollywood, we bring you The Sugars. After months of painstaking work, a panel of ***AA*** staff old and new have decided on the best products ever to grace the central processors of the CPC.

The ceremony is split into three categories – hardware, games, and serious software. So now over to your host, Simon Forrester:

Hello and welcome, Ladies and Gentlemen. Please sit back and relax as we present... The Sugars. Let me explain the format of this most prestigious of award ceremonies:

Hardware is rated on several criteria. We look at quality and the way the box (or whatever) is put together. We also rate for innovation, usefulness and price.

Of course, we also test individual factors, such as speed and reliability for disc drives, speed, quality and noise for printers, wearability for joysticks, ease of use for ROMboxes, etc.

For **Serious Software**, the rating system is much like the hardware section, only more strict. The main factors tested are versatility, speed, power, ability, price, and reliability.

How else to rate **Games**, than in the good old ***AA*** way. We mark graphics, sonics, grab factor, and staying power. We'll also be looking at innovation, pricing, and overall impressions.

But let's get on with it... →

Hardware

Welcome to the first part of tonight's show, the section that sees the most expensive precision work, and some of the most sought-after products. We're talking about hardware.

And so on with the awards, and our celebrity presenter, Michelle Pfeiffer. Unfortunately, Michelle can't be with us tonight, so Simon Forrester will be doing the honours for her.

Joysticks

The nominations for this category were the Quickshot series (for doggedly refusing to stop designing joysticks), the Competition Pro range (for their sheer quantity of colour combinations), and the Konix Speedking (for its design).

Probably the one joystick that is closer to perfection than most is the stick that is designed to fit beautifully into the hand (be it left or right), with easily accessible fire buttons, good quality microswitches, and above all, durability. And when we say durability, we mean it.

You guessed it, the Konix Speedking is probably the best joystick available, which is why we're proud to present it with the Sugar award for 'Joystick Excellence'. Congratulations Konix.

Black Boxes

Black boxes are widgets that plug into the back of your machine, and allow you to freeze the action at any time so you can examine the contents of memory and do stuff to it. The nominations were as follows: HackIt (for its programming facilities), Mirage Imager (for its simplicity and uncomplicated approach), and the Multiface 2 (for its hacking capabilities).

This is a very difficult decision and in the end, a joint award had to be given.

First, congratulations to Romantic Robot, who receive one half for their Multiface 2, which has pushed back the boundaries of games hacking/poking for many CPC users. Its capabilities are proved time and again, as fewer and fewer protection systems manage to defend themselves against its brute hacking strength.

The other half of this award must go to Siren Software, for their innovative HackIt box. The ability to freeze memory and work on it with an advanced set of programming tools has proved to be an invaluable aid to machine coders.

So it is with great honour that we award both Siren Software and Romantic Robot with the Sugar award for 'Sneaky Stuff'.

Disc Drives

The arrival of the 3.5" drive onto the CPC scene was, to say the least, refreshing. The facility of saving more than 360k on a disc saved quite a lot of people's money, as 800k for 50p seemed far better than 360k for £3.

It's possible to attach just about any drive to your CPC, but there were several companies who marketed 3" drives to CPC users. These had the advantage of being guaranteed to be compatible, and coming with the correct leads, etc.

Of course, there were also those companies that provided extra boxes, allowing the 3.5" drive to be used as a DDI-1, and allowing users to actually utilize the whole 800k (normally the CPC only accesses 180k of any disc).

And so picking the best 3.5" drive supplier was difficult. But there was one company that stood out among the others for their prices, the drive's manufacture, and the bundle it came with. And so congratulations to Siren Software, who win the Sugar award for 'Hard Driving'.

Printers

Printer, eh? The only device with the in-built feature of being impossible to get working properly on your CPC the first time round. This is fact. When a salesman sells you a printer, they automatically set a spare one aside, so they can help you quickly when you bring it right on back. So how do we qualify a strange beast such as this? Well, if you ever do get one working, it'll be an invaluable aid.

What makes a good printer? Well, there are several things to consider:

- Pin quantity – Most printers are 9-pin, but the more pins, the higher resolution of your printout (in text mode).
- DPI – Dots per inch means, well, exactly what it says. A printer that can fit more dots into one inch can give you a higher resolution graphics printout.
- CPS – Characters per second is the standard measurement form for a printer's speed.

And so we've given the award to a printer with speed efficiency, low power consumption and high resolution. The printer we finally chose can be plugged into a CPC very easily, and has a good, clear, and concise manual, containing all the information you need on dip switching, etc.

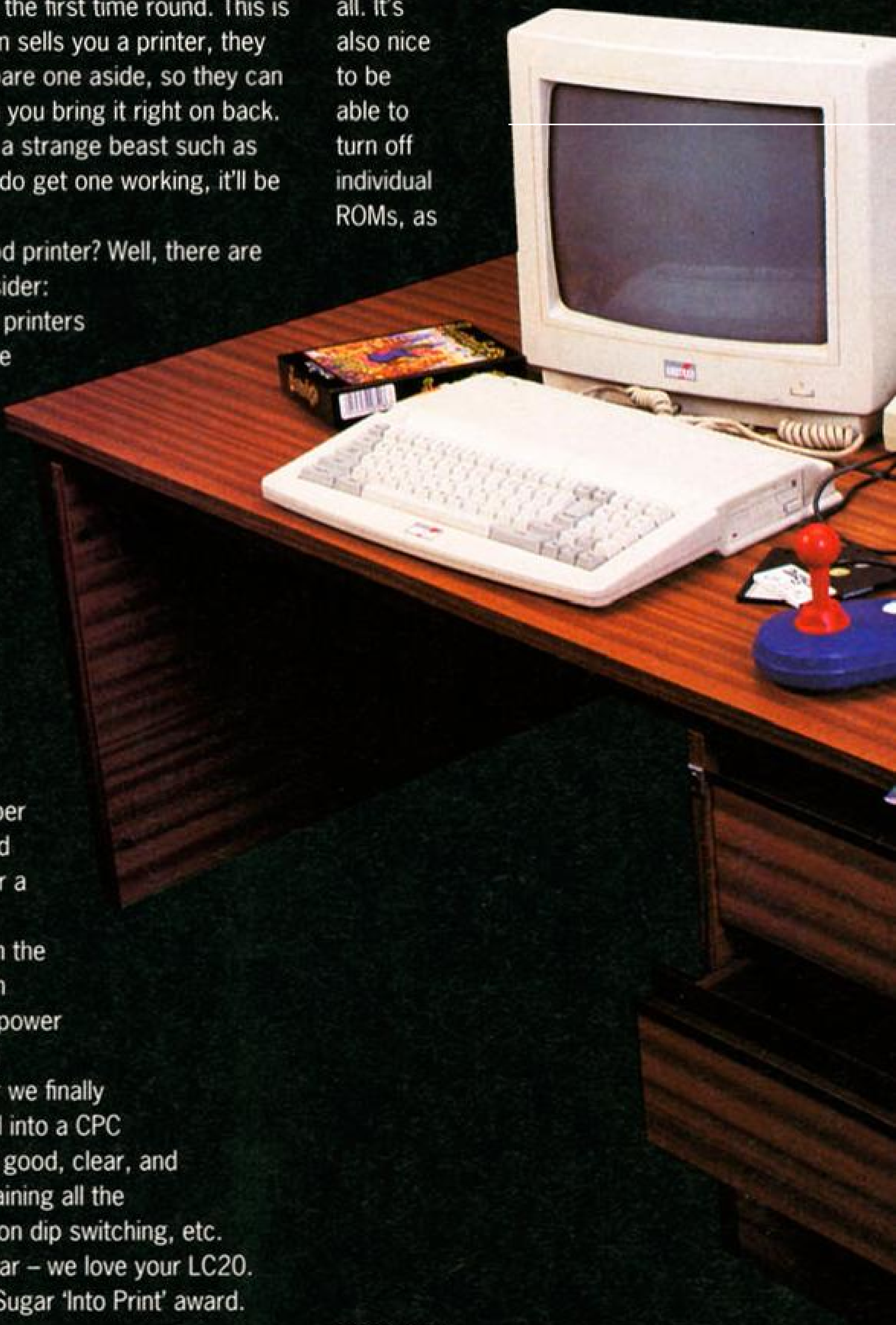
Congratulations Star – we love your LC20. Have an award – the Sugar 'Into Print' award.

ROMboxes

Here's where things get really difficult. For a full explanation of exactly how a ROMboard works, you can refer back to issue 92 (or buy it if you haven't already got it – see page 30).

Now... To rate a ROMbox properly, we have to look at several features:

- ROM insertion – How easy is it to manoeuvre those small, fragile, and unfeasibly delicate pins into the sockets. Some boards have ZIF sockets (zero insertion force), but these never really seemed to take off for the CPC.
- Expansion sockets – There's nothing worse than having a ROMboard on the back of your machine, full of ROM software, only to find that you can't put anything else on the back, because of the total lack of a through port.
- Sturdiness – When you add a ROMboard to your CPC, it has to be sturdy. Some fragile little piece of PCB is going to snap as soon as you move your CPC around. Free standing modules always come top in this area, as they don't place all their weight on that ball crunchingly fragile PCB edge connector of the standard CPC.
- Switching – There are times (such as running many games) when you need to lose the board completely. Here, you have two choices. You can either unplug it, or switch it off. If you don't have a switch, you're destined to plug and unplug your ROMboard until the connector refuses to work at all. It's also nice to be able to turn off individual ROMs, as some may interfere with others.



So, after that mammoth set of gripes that should have set every board manufacturer's teeth on edge, we'll cut straight to the winners. The first winner of this joint award, the Sugar 'When In ROM Trophy', is Rombo, for their board, imaginatively titled 'Rombo'. The board, though falling down in the 'ease of insertion' stakes, has a lovely long lead, through expansion ports, and some easily accessible dip switches.

The second half of the award must go to Siren Software for their ROMboard, called 'ROMboard'. It's not got as long a lead as the Rombo board, but has the through port, easily accessible dip switches, and comes in a sturdy little box. Unlike the Rombo board (which carries

8 ROMs), the Siren board only carries six, but six is easily enough. The Siren board does have one advantage over Rombo though – when you open the box to insert ROMs, the whole circuit board comes free, so you can insert stuff very easily.

Games

The games awards have been arranged slightly differently to the other two categories. In this section, we do not have several separate categories – instead, we have ten Sugars to award the ten most innovative, entertaining, original, and well presented games in CPC history. So without further ado,



may I welcome to the stand our presenter for the Sugar games awards, Keanu Reeves. Unfortunately, Keanu can't be with us tonight, so the awards will be presented by that other international star, Simon Forrester. The awards are presented in alphabetical order, as no preference is shown between them.

Bloodwych

Why *Bloodwych*? Well, when it first arrived on the CPC, it was the first 3D role playing romp-'em-up. Sure, there'd been many other 3D dungeon games even in the very early arcades, but *Bloodwych* was different. It had you controlling a party of four people, be they wizards, warriors, thieves, or clerics. Each player had separate statistics, could carry objects, use spells, etc, using the wonderful icon system.

On top of that, the dungeon was large, with various obstacles, bad guys, weapons to collect and use, rune stones, and much, much more.

For the first game to have used this system on the CPC (and many other machines, under the guise of *Dungeon Master*), they'd got it perfect.

And so for innovation, care, thoughtfulness, challenge, fun, and intrigue, *Bloodwych* most definitely gets one of the coveted Sugars.

Builderland

We've all played scrolling platform games. We've all romped around jumping over huge drops, collecting goodies, entering sub levels, etc. *Builderland* is different. Instead of controlling a blokey that runs around, you control the landscape. Weird, huh?

You see, with *Builderland*, the blokey is totally stupid. All he does is walk to the right. That's it. Your job is to shuffle various moveable blocks (with a *Puzznic*-style movement system), to bridge these gaps, and allow said bloke to reach the end of the level.

As well as blocks, there are springs, lifts, ramps, clouds, pots, mines, and much, much, more. You could get the bloke to pick up various other useful things, such as magic shoes (I'll get you, my pretties!) which allow the bloke to stroll happily over mines, false floors, etc, without setting them off. Actually, they're probably just a pair of slippers, but nonetheless, they do the trick.

So, for the weirdest angle on a computer game, combined with addictive and manic gameplay, *Builderland* gets the Sugar easily.

Chuckie Egg

Chuckie Egg, eh? It's old. Very old. The format is simple – a single screen platform game, in which you must collect all the eggs (playing Hen House Harry), and avoid the geese. It only had eight levels, that cycled after you'd completed them, gradually adding more geese, huge rubber ducks, and the like.

So why does it get a Sugar? Well, after *Manic Miner*, it's probably the first platform game of this style to hit the CPC. It's also the best. It took some elements of *Manic Miner*, sped them up, and actually ended up as a game that was fun.

The odds are, you'd never find it these days – the company who originally carried it, A'n'F, vanished without a trace. But if you do come across it, snatch it, as you won't get many opportunities like that one.

What more can I say? *Chuckie Egg*, you get the Sugar. Polish it regularly.

Elite

The problem with most computer games is that they are incredibly restrictive when you think about it. There are many ways of solving the same problem, and with most games, you have to not only devise a strategy, but hope and pray that it's the same strategy the programmer wanted you to think of.

This isn't a problem with simple platform games, etc, but with larger, more adventury style stuff, it's a major set back. As you've probably guessed by now, *Elite* breaks the mould.

As a 3D vector space game, it's one of the best, with radar, various other types of ship, planets, space stations, invading forces, etc. Each ship you will come up against has different flying techniques, speeds, handling, etc. You don't get consciously plonked in front of them one by one by the way, you'll just meet them while you're flying around, and trading.

That's the other aspect of the game – trading. Each planet has a space station where you can dock, buy fuel, extra weaponry, and 'stuff'. By 'stuff' I mean anything from a large array of food, material, metals, machinery, etc, that the planet produces. Each planet has different prices for 'stuff', so the point is to fly around buying things cheap, and selling them on planets that pay a slightly higher price.

Alternatively, of course, you could just attack other traders, and steal their cargo (from the wreckage that you turn their ship into with a healthy dose of laser), and sell that. No overheads, you see.

Failing that, you could become a bounty hunter, and blow away renegade ships, getting cash rewards for every bad guy you waste (if you waste a good guy, you just get a criminal record). On the other hand, (if you're a hyper-evolved alien-type and you actually have this many hands) you could buy a mining laser, and mine asteroids for a living.

You see, that's the the beauty of *Elite*. At no point do you ever have to say what you're doing – you just do it, and get on with the game. As far as flexible game environments go, *Elite* has to be one of the best. It's also a damned good space flight sim. Sugar? We think so.

Guild Of Thieves

Okay, okay, I'll put an adventure game in. Well, it would have gone in anyway, really. You see, when it comes to adventure games, get *Guild Of Thieves*. It's fab in a majorly fab way.

Adventure games have three main aspects - plot, style, and interaction:

Plotwise *GOT* is good. Your reasons for actually being there are strong – to join the Guild Of Thieves. There's none of this 'journey through the magical land' or 'do the laundry' nonsense.

As for style, well... There are some absolutely wonderful graphic screens (with beautifully drawn pictures of locations), humorous descriptions (and a few humorous exchanges), with a written style that is perfect for the game. Everybody has sensible names, and every castle has several bedrooms, a bathroom, and several sitting rooms. That's the way a castle should be.

As far as interaction goes, the parser is impeccable. It understands multiple requests (such as 'Open the bag and put the coin into it'), and therefore hardly ever gets stuck on →

what you're asking it to do. Every object has a description, whether it can be moved or not, and every room has a lot to look at, and do.

If you're just getting into adventures, this is the game to take a look at, and if you're already a hardened dragon slayer, you'll appreciate it (though it doesn't have any mystical beasts).

Definitely a Sugar.

Prehistorik II

If you want an explanation of why *P2* gets a Sugar, just read the review this ish. 'Nuff said.

Prince Of Persia

As I said earlier, we've all played platform games. So what's so special about this one? Well, you're rescuing a girl (which is nothing new), slicing a fair few bad guys (old hat), and avoiding deadly drops (yawn). If this came in for review, I'd probably blow it clean away, were it not for the fact that it's incredible.

The bloke you play is not just your average pixelized guy with no hands. He's human! When you just miss a platform, you can make a grab for it, and clamber up to safety! You can climb down the edges of platforms, swing dangerously from ledges, and pretty much do everything you yourself could do in that situation.

This extra depth in gameplay makes what would have been just another yawn-'em-up a wonderfully challenging game. You really empathise with the prince when he catches a spike right in the groin, of missed a ledge after making a desperate grab for it – far more than if he'd have just fallen to his death with a stupid grin on his face.

It's definitely Sugar material.

Rick Dangerous II

Rick Dangerous is basically an ordinary bloke. However, when aliens land in Hyde Park, he feels compelled to penetrate their defenses, and defeat the invading alien nation. I know I would.

For someone who is fundamentally rectangular in shape, Rick sure manages to do quite a bit. He's got mines, walking mines, and a laser gun. That's it. With this, he hopes to defeat a force of deadly extra terrestrials.

Oh yeah, it's a platform game. Sorry about that. Anyway, Rick can run, jump, crouch, crawl, and do loads of lovely stuff along those lines, but apart from that, it's just a very simple platform arcade adventure. What's so special about it then? Well, it's fun. Simple as that. There's a wide range of meanies out there, from wall mounted laser cannons, through boulders, all the way to snowball machines.

Quite simply, if this game doesn't keep you intrigued for quite a while, I'd be very surprised.

Super Cauldron

As with *Prehistorik II*, just check out the review (last ish) to find out why it's included here.

Tetris

Yeah yeah yeah, I know there's been several 'improvements' on the original, in the form of *Power Tetris, Super Tetris, 3D Tetris, Welltris,* etc, but you can't beat the original. The whole point of *Tetris* is its simplicity of concept, and no-frills addiction. This does lead me to ask why, for a game which was based on simplicity and non-commerciality, did a pop group see fit to climb the charts with a cover version of the theme tune? This kind of thing worries me. I'm just thankful it wasn't Kylie. Keep an eye out for the film of *Tetris*, staring Hulk Hogan and Macaulay Wotsitsname – it should have been written by now. Failing that, go out and buy the hooded top.

Sorry about that, I got carried away. Anyway, congratulations Russia, for producing *Tetris*.

Serious Software

Ladies and gentlemen, for the final part of tonight's proceedings, may we have a warm hand for Jodie Foster. Unfortunately, Miss Foster couldn't be with us tonight, and so we must hand over to ***AA***'s very own Simon Forrester.

Books

Ask any machine code programmer. They'll all tell you the same thing. If you want to code, you really should get a Firmware Guide. This is simply a book that gives full details on every single jumpblock entry, etc. Put more simply, it is a complete documentation of everything the CPC can do, and exactly how to do it.

These were originally sold by Amstrad, but are no longer in print. This is unfortunate, as they're now like gold dust, so if you can possibly find someone selling a copy, expect to pay around 20 quid. Believe me, it really is worth it.

And so for unfaltering service to machine code programmers everywhere, the Firmware Guide (Soft 968) wins the Sugar award for 'Huge Black Books Full Of Technical Stuff'.

Assemblers

When you're machine code programming (with or without a firmware guide), you'll need an assembler. This is a program that converts your text program into the series of numbers that the CPC interprets and acts on.

There are many different assemblers around but none really comes close to the winner of this award. The winner is, of course, *Maxam*. For an assembler, *Maxam* is, to say the least, advanced. It contains breakpoint features, a full text editor, a memory editor, a disassembler, etc, etc.

What more can be said? When it comes to assemblers, *Maxam* is the one to own (on tape, disc, or even ROM). Arnor should be jumping around hugging each other when they find out they've won the Sugar award for 'Technical Programs That Most People Can't Understand'.

Disc Utilities

You've got a 6128, a 664, or a 464 with a disc drive. You've also got a packet of discs. Some are 3.5" and some are normal 3". But maybe you want to do just a little more than saving and loading files. You might want to unerase files, format discs, verify disc formats, set files to read only, hide them from the directory, format a 3.5" disc to a high density format, etc etc.

This, as you've probably realized, is → p18



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where *Maxidos* comes in. You get a command line, with the various functions executed by way of a simple command. This, granted, is a little more difficult to use than a structure of menus, but as far as error trapping (how idiot proof the package is), *Maxidos* is second to none.

As a further incentive, the package includes a sector editor (for close and delicate disc operations) and an optimizer. An optimizer is a fab little program that takes files and simply re-arranges them. You see, after a while, because discs have so many files erased, saved, etc, the file is not one solid chunk of data, but several parts on various points of the disc. This slows down disc accessing, as the read head of the drive has to jump all over the place to actually read the disc. An optimizer, then, rearranges the disc so that all the files are sitting in large blocks, speeding the whole thing up immensely.

So, instead of going out and buying several disc utilities to take care of your disc operations, why not just *Maxidos*? We've given it the Sugar award for 'Far Too Useful Disc Utilities'.

Mini Office 2

Before we start here, I think we should mention that this award is actually entitled the Sugar Award for *Mini Office 2*. Why? Well, it's not a category, you see. The logic behind this is as follows – here is a package that combines a spreadsheet, a database, a word processor, and a communications package, as well as a numerical graphics (pie charts, bar charts, etc). So why shouldn't we give such an outstanding package a reward all of its very own? Put quite simply, if you're a part time serious user, *MO2* is something you really should consider shelling out for – it contains pretty much everything you're really likely to need for most applications.

Congratulations, Database/Europress.

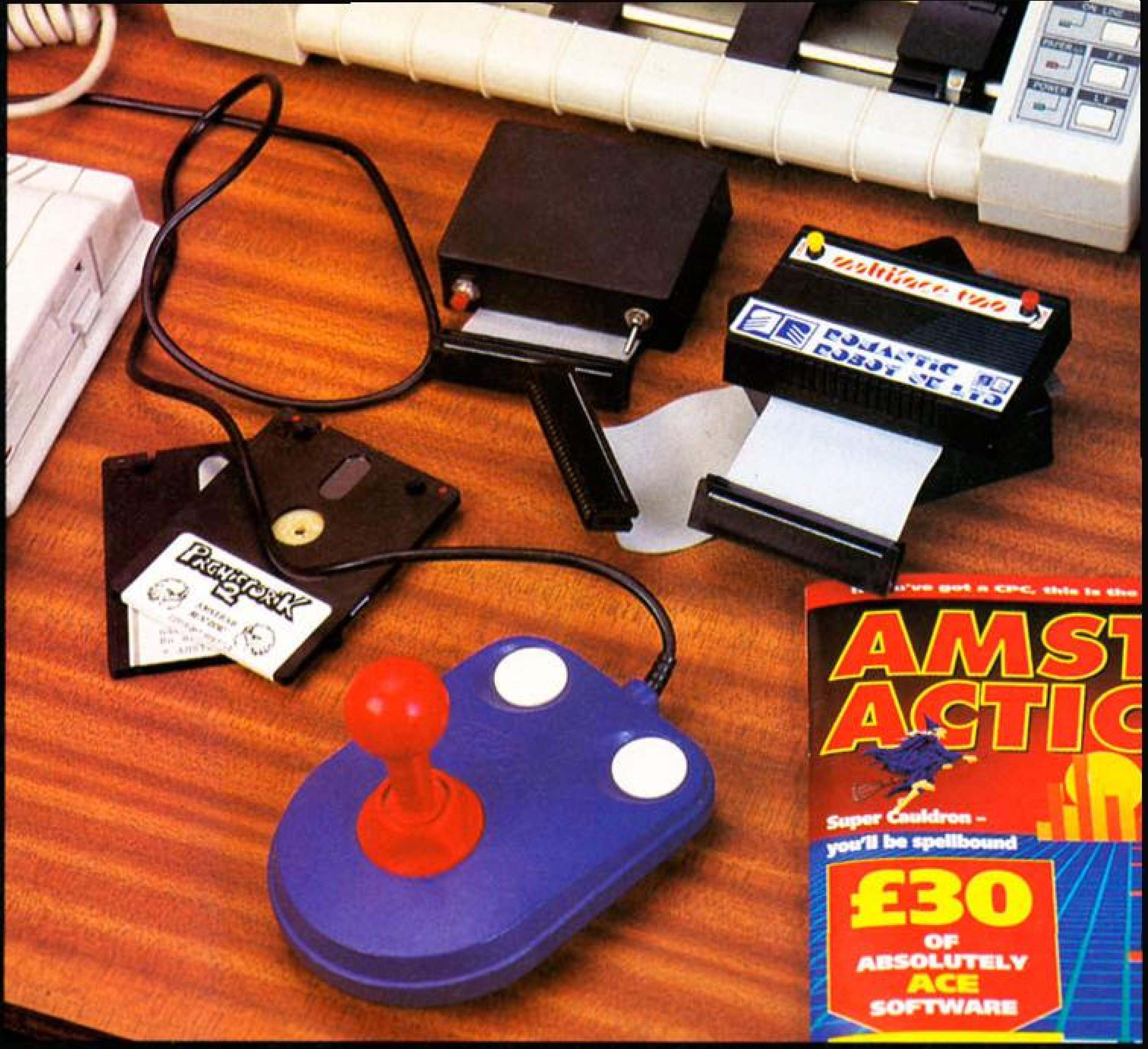
Art Packages

If you think about it, one of the most difficult things to get a computer to do is artwork. Whereas with a pencil you can create any shape you want, a piece of computer artwork has to be built up of dots and lines.

This is where a good art package really comes in handy at times. You see, most shapes are only possible in an art package because the program has facilities for that shape. Imagine trying to draw a large circle without a circle option. How the heck would you do it? Sure, it's possible in BASIC, but that's no use to you when you're in an art package!

I guess what I'm trying to say is that for an art package to really leave a mark, it has to be really comprehensive. That's why I opted for *OCP Art Studio*. *OCP* has probably the largest range of drawing tools ever to grace the CPC, along with ink protection facilities, cut and paste, transparent, OR, AND, XOR, and opaque modes, palette switching, and pretty much everything else you'll ever need to produce some of the finest screens your CPC has ever seen.

Of course, you'll always need a bit of artistic skill, but with a package like this, that should be the least of your worries.



DTP Packages

Unlike an art package, a desktop publishing package has to have good text handling facilities and an ability to work on A4 paper. This is because when you are producing a fanzine, newsletter, or information sheet, you'll want to be able to produce large amounts of text on a WP package, and import it onto the page. The alternative is typing everything with a dodgy text function on an art package – no fun.

The answer, then, is to use a DTP package instead of an art package. But which one? Well, there have been two main contenders in the field – *PowerPage*, and *Stop Press*.

Stop Press was the work of Advanced Memory Systems, creators of the AMX Mouse, and its accompanying art packages. The package itself is rather strange. You see, though it has a mouse bundled with it, you do have the problem of needing the *Stop Press* disc for the CPC to access every time you select a menu option. This, as you can imagine, is a bit of a heavy downer. You see, you can only store two pages per side of a 3" disc. You won't find many packages that get a better storage size than this, but it does mean that you cannot store pages on your *Stop Press* disc itself, meaning huge amounts of disc swapping.

And so in steps *PowerPage*. Its claim to fame is that it does everything *Stop Press* does, but with two main differences. First, the whole package sits in memory at once (no disc swapping at all) and secondly, it's free! That's right, *PowerPage* is totally PD! And so the Sugar 'Cheap, Cheerful, and Surprisingly Powerful' award goes to Richard Fairhurst of Robot PD.

Word Processors

For a word processor to be in the least bit useful, it has to be fast, flexible, comprehensive, and easy to use. I think we can safely say, then, that *Protext* has got the lot.

Unlike other WP packages, *Protext* works from a command line. This means that instead of selecting what you wish to do from a series of menus, you simply type a command (a bit like BASIC, really). Of course, it works as a normal WP when typing, with a normal editing mode, but with the command line format, it means you can process documents much easier. For instance, when printing, instead of going through several menus, you simply hit 'P'. To set up printer controls, there's an entirely separate command.

As a text editor, *Protext* is good as well. It supports user-definable control codes (for printers), hard spacing, justifications, word wraps, different rulers, international characters, block operations (copy, move, delete, load, save), and just about anything else you need.

So Arnor get the Sugar award for 'How Many Things Can We Pack Into A Word Processor?'

DOS Systems

Over the last few issues, there has been dispute over just which is the best high capacity package around. It's been a close run battle between *SDOS* and Siren Software's upgrade to the original *ROMDOS*, now called *ROMDOS XL*. Due to bugs in the released version of *ROMDOS XL* though, *SDOS* did scoop a fair amount of sales.

However, *ROMDOS XL* has just been re-released, totally bug free, and just scoops the prize as the definitive DOS package, with built in copiers, directory editors and stuff, which just about bring it far enough forward to take the Sugar award for 'DOSsing Around'.

Soundtrackers

If you want to know about why *Soundtrakker* wins the 'Just A Quick Note' award, check out AA92.

Magazines

Oh, we couldn't possibly... Yes we could... I'd just like to thank the whole team, all the readers... ●

Technical Forum

Richard Fairhurst is our mate, He writes the Techie Forum. He had some lovely trousers But he tripped and fell and tore 'em. (You're fired. – Ed)



Qs+As

Type-in troubles

Many complaints received about programs running incorrectly: true that some progs simply do not run true. *(No it isn't. – Richard)* Nothing worse than clattering away at keyboard even with Typerighter only to learn prog is flawed. Often find progs with `READ A$: POKE a,VAL("&"+a$)` or `x=VAL("&"+b$)` or `IF VAL("&"+chk$)` or similar never work. Yet progs supplied on tape/disk containing routines often run perfectly. Are these 464 specific?

Norm Roberts
Australia

Do you have something against verbs in sentences? Anyway... no, you'll almost never find 464-specific programs these days. The lines you mentioned perform the function of reading in hex bytes (usually for machine code purposes) from DATA statements.

If the program doesn't work, you've made a mistake in the DATA statements in the Type-In: search through checking that you haven't mixed up the letter I for the number 1, the letter O for the number 0, etc. (Hex bytes are made up of the numbers 0 to 9 and letters A to F only.)

The Magnificent Seven

1. I have recently bought an Amstrad 464 Plus. In *Advanced Art Studio* (tape version), I can draw the picture but can't get it to save onto my tape. I have tried to click Save: my tape starts and after a while stops. Then, when I switch off the computer and try to load, nothing. Do you know what's wrong?
2. I read in ***AA*** how to upgrade 64k to 128k. What parts are needed? I got the 64k RAM pack with *Art Studio* – would the parts be inside that?
3. Although ***AA*** is the best, are there any other mags for the Amstrad?
4. What is a toolkit, and what is it for?
5. Would any other games for other computers work on the Amstrad?
6. I have seen some games that say IBM PC compatible. Is the Amstrad one of these?
7. On getting the 64k RAM pack, it said to type EMULATE and it would act like a 6128. However, when I did, all I got was Syntax error. Did I do something wrong?

Peter Doyle
Ireland

1. Make sure you press Record and Play on the tape recorder, with a blank tape in it, before you do any clicking...!
2. You have 128k now: 64k in the Plus, and 64k in the RAM pack. There'd be no point in putting any extra chips in the Plus, because the extra memory is already supplied by the RAM pack.
3. There aren't any other news stand magazines. However, read Tim Blackbond's Public Image column, which regularly reviews fanzines (enthusiasts' magazines) for the CPC and Plus. Tim himself runs one of the best, Artificial Intelligence, which is thoroughly recommended.
4. Taking apart your CPC? A toolkit program usually gives you utilities to develop programs with, or such like. If you don't know what it means, you don't need it.
5. No. Readers everywhere, take note.
6. No. Amstrad do make a range of PC-compatible machines, but the CPC and Plus aren't PC compatible at all.
7. First of all, load the software supplied on tape with your RAM pack. Then type IEMULATE (the I at the beginning is important). This should work!

Connectivity

I have just been given a Sinclair Prism VTX5000 modem. Can you please tell me if this is compatible for use with my CPC. Also is it possible to use a printer (Brother HR-10) which has a serial connection on it? I look forward to hearing from you.

KM Dalton
Essex

The modem is unique to the Sinclair Spectrum, I'm afraid. Spectrum owners are a bit starved for modems, and can really only use this one – CPC owners, with the right interface, can use almost any (other!) modem available.

You can use the printer, but you'll need a

serial interface first (try Siren Software or Avatar). Be warned that, if your printer isn't Epson-compatible (look in the manual), few, if any, graphics programs will print out on it. Word-processors should be okay, too. The serial interface can be used to connect most modems to your CPC, should you want to buy one…!

Driven mad

I have an Amstrad CPC 464 and have just purchased the Siren Software A-drive package, which I am very happy with. Until the purchase of the disk drive, I was unable to use my dk'Tronics 256k Silicon Disc which I had bought for the memory expansion capabilities and modified using the article in AA46. Now I can use both drives, but I am unhappy with the measly 178k on my A-drive. I noticed recently that you put Serge Querne's Magic DOS on the covertape, but unfortunately it only formats to the B-drive.

I wondered if I bought an ABBA and a side switch from Avatar, would I then be able to change my external 3.5" A-drive for the internal RAM B-drive, and thus be able to format my disks to 800k per disk: then, once I'd reversed the disks again, would I be able to access the new format from my A-drive or would I be better off just buying S-DOS which I understand would enable me to access 800k from my A-drive?

Also, I am particularly fond of *The Bard's Tale* and my delight upon being able to load it quickly from disk (using the Multiface) rather than wait hours for it to load from tape soon diminished when upon transfer of the main game as a test, the computer (after loading the first file okay) then proceeded to access the tape mechanism and totally ignore the disk drive. I have a little knowledge of machine code, and upon examining the BOOT file using a disassembler, I discovered firmware CALLs to the tape and not the disk drive, which I assumed might be taken care of during the transfer. I would be very grateful if you could also help me out on this point as it is driving me insane.

Nigel Shipp
King's Lynn

Your disk drive question first. Unfortunately, Magic DOS disks only work in the B-drive – even if your A-drive is a 3.5" one. S-DOS is probably a better bet, as it lets you use its disks in either drive. Remember you'll need a ROM-board, though. STS Software has moved recently, to 58 Graiglwyd Road, Cockett, Swansea SA2 0XA. To be fair, Avatar's MS800 lets you use its disks in the A-drive, too. It's cheaper if you don't already have a ROM-board, but S-DOS is a lot less hassle and easier to use.

The Bard's Tale tape loader? Aaaargh, don't remind me… I used to be an avid player of this game until a program bug made my saved game file (with a party that I'd spent weeks building up) inaccessible. Your normally placid technical writer suddenly became an axe-wielding homicidal maniac. As far as your transfer problem is concerned, the point about the Multiface is that it saves an exact copy of what's in memory to disk. So, if it says in memory that you're using the cassette system (most probably because the disk system hasn't been initialised), this is what the Multiface will record in your disk copy.

What can you do? Well, if you know something about machine code, all the better. Have a look at the CALLs in the loader (and, once that problem's solved, the main game) to access the tape. I have a feeling that &BCA1 may be used to read data directly from tape, and &BC9E to write it: if so, you're in trouble, because this system is completely incompatible with AMSDOS (which doesn't even bother to emulate it, as it does the other firmware calls). In this case, you'll have to completely rewrite the tape routines to load and save using your own system. Disc routines aren't usually too tricky to write, though: since you'll almost certainly just be saving one block of memory in each file, you needn't worry about finding space for the 2k input/output buffer, either.

Otherwise, it should be a matter of initialising AMSDOS using the call at &BCCE (if you want to initialise S-DOS or similar, too, use &BCCB), and then jumping into the Bard's Tale, which you should ensure does not reset the firmware to a normal (tape-based) state. (You'll need to initialise AMSDOS whatever you do.) This is certainly a feasible project – if you decide to attempt it, good luck, and let me know how you get on…!

Video star

1. How do you make an overscan routine in a) BASIC and b) machine code without getting scrambled and twisted lines? Can this be done without a great deal of programming?
2. How do you execute a palette switch half way down (or somewhere on) the display? I know you have to use something kicked by `KL_NEW_FAST_TICKER`, but how do you do it?
3. I imagine it would be quite complicated, but how on earth do you display all 27 colours on screen at once (especially in MODEs 1 and 2)?
4. Where are the inks stored in memory, and what is the machine code equivalent of the INK command?

John Marsters
Halesowen

Two letters from the same place in one issue: is Halesowen to the CPC what Manchester was to crappy music?
1. The Amstrad's firmware is designed around a 40 by 25 (in MODE 1) screen. Change it and it gets very confused – it wasn't made to cope with different dimensions. This means that you'll have to write your own screen access routines, which isn't much use for BASIC, but in machine code you'll probably be using specially written sprite routines anyway which you can adapt to the new screen layout.
2. Dead easy. Here's a machine code routine to change the border colour half-way down the screen using that technique:

```
    org &8000
    ld a,0: ld (count),a
    ld hl,block: ld de,routn
    ld bc,&8100
    call &BD19: call &BCE0
    ret
.routn ld a,(count): inc a
    ld (count),a
    cp 3: jr z,halt3
    cp 6: jr z,halt0
    ret
.halt3 ld bc,&7F10: ld a,64+12
    out (c),c: out (c),a
    ret
.halt0 ld bc,&7F10: ld a,64+11
    out (c),c: out (c),a
    ld a,0: ld (count),a
    ret
.block ds 9
.count db 0
```

Okay, so what does it all do? Well, the first few lines simply set up the interrupt: `DE` *contains the*

Printing problem

Not long ago I purchased a Star LC-200 colour printer. I've been using *GPaint*, but it will not print out in colour: just in black, or one single colour. I have tried other packages (*Melbourne Draw, Image System*) but they do the same. Can you solve my problem? And could you recommend some good clip art discs?

Stuart Clenton
Halesowen

Colour printers aren't a very widespread add-on amongst CPC users, and have only emerged in great volume recently. This means that very few programs support them. However, pick up a copy of Colourdump 3 and your problems will be solved: this program is designed for Star printers like yours, and outputs screens (slowly) in glorious technicolour. The program's makers, MJC Supplies, are unfortunately no longer with us – however, see if you can pick up a second-hand copy somewhere.

Most PD libraries can supply you with a good selection of clip art at cheap prices. You don't get to see exactly what you're buying before you order it, but it's so cheap it hardly matters.

Alternatively, Goldmark Systems have the Graphics Galore range of clip art, where you do get a nice printed catalogue of every item, but it's many more times more expensive.

Splat!

I am making a fanzine called 'Splat!' and two programs called *ABC* and *School Daze*. *ABC* is an educational program and *School Daze* is an adventure game. Please answer the following questions:

1. When creating loading screens on tape, messages like 'Loading <filename> block <number>' come up. Is there any way to stop this? Otherwise it means all my programs will have to be disk-only.
2. I have heard that some commands are 6128 only. Which ones are they?
3. Do you need copyright to use screenshots from disk?

Andrew Hughes
Sheffield

One of the best games I ever played was called Skool Daze*... it never came out on the CPC, unfortunately. To your questions:*

1. Prefix the filename with an exclamation mark when you try to load it. So, instead of typing `RUN "PROGRAM` *you would use the line* `RUN "!PROGRAM`.

2. FILL, GRAPHICS PEN/PAPER, FRAME, CLEAR INPUT, COPYCHR$, DEC$, DERR, CURSOR, MASK, and ON BREAK CONT. Most of them can be emulated by the 464 (see past **AA***s).*

3. If you're going to use a screenshot from a commercial game or utility, strictly speaking, yes. However, if you're using it as part of a review of that program or tutorial on how to use it, you'll be okay.

address of the routine to call every 300th of a second, `HL` *the address of a 9-byte work space for the firmware,* `C` *the ROM number (since your routine isn't underneath a ROM, 0 will do), and* `B` *the event class (*`&81` *for a regular RAM-based event like this).*

A count is held of how many ticks down the screen we are. This can be from 0 to 5, depending on where the electron beam that draws the screen is. (This is initialised to zero at the start, when the beam should be at the top of the screen. To make sure that the beam is at the top, we do a `CALL &BD19` *just before setting up the fast ticker event.)*

The routine adds one to this count every time it's called. If it reaches 3 (half-way down), then it sets the border colour to red. If it reaches 6, this is over the limit and it should be reset to zero again, because the beam is at the top of the screen – so we do that, and change the border colour to white.

The result is a border which is white at the top and red at the bottom of the screen.

How does the ink changing work? It would be nice if we could use the firmware routines to change ink. However, these are set up so that inks are changed only when the beam is at the top of the screen, and as we want to change it in different places each time, this would be a bit useless. Instead, we access the hardware directly. This is done by sending the ink number to change – 0-15, or 16 for border – to the port `&7Fxx` *(as in* `ld bc,&7F10: out (c),c`*), and then sending the colour number, plus 64, to change it to. Warning: the colour numbers for direct hardware access are not the same as the 0-26 values we all know and love. You can find a list of what they are in SOFT 968, the Firmware Guide.*

3. Using the technique above, change colours at certain interrupt points down the screen. Alternatively, you can use the demo-coder's technique of synchronising your program's execution to where the electron beam is on the screen, and changing the colours at the start of every pixel line. If you want more info on this, write to us and let us know.

4. Inks are stored in different places in memory with the different models of the CPC. However, there are some firmware routines to set them, in addition to the method outlined above. With B and C holding the two inks to be flashed between (make them the same if you don't want flashing), `CALL &BC38` *to set the border, or* `CALL &BC32` *to set the ink number contained in* `A`*. To find out ink values, use* `CALL &BC3B` *for the border, and* `CALL &BC35` *for the ink number contained in* `A`.

Membrane damage

I have a 664 with a malfunctioning keyboard. On inspection, the keyboard membrane was found damaged. Temporary repairs using conductive paint were only partially successful – some keys still don't work. Have you any suggestions for suppliers of these membranes? Do you know if they are available for the 664? If not, would a 464 keyboard work with some work on the casing? I'm an electrical/electronic engineer so there is no problem working on this gear.

H Wheeler
Sheffield

Two from Halesowen and two from Sheffield in the same issue! All the spare parts available for the CPC are sold by CPC Ltd. of Preston, Lancs. If you're an electronic engineer you may know of them already – try to get their trade price catalogue, because it's a lot cheaper!

There shouldn't be too much of a problem using a 464 keyboard with a 664 CPU: to check, take the ribbon cable lead from the 464 keyboard, and replace the 664 keyboard cable which plugs into the main circuit board with it. If you can type things in as usual and it works properly, you're okay. Otherwise, I wouldn't bother.

Food for thought

I am designing an automated cooking system

Fighting corruption

I am very new to computing and purchased a second-hand 6128 some four months ago. With it came some spare disks including two system disks. Sides 1, 2 and 3 of these are good in so far as they have done what I have asked of them. I have been able to make back-up copies of them. The problem came when I tried to copy side 4, CP/M 2.2 System Utilities. I can load to track 25, then I get an error reading 'Disc error track 26 Sector &02, Data error within file MOVCPM.COM' and have to abandon the attempt.

I would like to make back-up copies of this and *Mini Office II*. Does this mean that my copy of side 4 is useless, or am I making some silly error? When I enter the command DIR I get a complete reading of the faulty side. Can you help a poor learner please?

RL Elms
Isle of Wight

First the bad news: side 4 is corrupt, and you won't be able to use all of it. However, you will be able to recover most of it: format a new disc (System format), and copy all the files except MOVCPM.COM onto this disc using a file copier, such as FILECOPY.COM on side 3 of your system discs. You'll be missing one file, but it will almost all be there.

The reason why you get a complete reading when you type DIR is that, every time a program is put on a disk, a note is made of this in the 'directory tracks' at the start of the disk. Even if the program becomes corrupted, the directory tracks won't know about this and will carry on showing the same thing. Typing DIR just lists the contents of the directory track, which explains why you get a complete reading.

It's not too desperate that you can't back this side up, anyway. It contains utilities for CP/M 2.2, an older version of CP/M which you're unlikely to use – CP/M Plus, supplied on sides 1 and 2, is far better. The utilities are fairly esoteric and useless for most people, to be honest.

Mini Office II is protected against you making copies of it – a device to guard against software piracy, which unfortunately prevents users from making legitimate back-up copies. To back it up, you can use an 'intelligent' disk copier which will get around the protection: try Procopy *(from Avatar),* Nirvana *(Goldmark Systems), or such like.*

Nice try, but...

A chap called Mark Fisher, from Cornwall, wrote to Top Tips to commend DMP Computer Software of Wolverhampton. Apparently, 'the sofware [sic] comes quickly, and it is very cheap'. Great: we're all for new software houses supporting the CPC. Just one question, Mark... if you live in Cornwall, how come your letter had a Wolverhampton postmark?a

involving a CPC as controller, which will control cooking apparatus (e.g. toasted sandwich maker) via a relay system. I need an input port, so I can feed back the temperature of the cooking device, and an output port, to switch it on and off. I am capable of designing the requisite circuitry, but what I want to know is: what can I use for input and output ports on my CPC? The BBC I used to own had plenty of provision for this, but the Amstrad seems sadly lacking.

Tim Whiteley
Bradford

We get the strangest queries at Techie Forum! The CPC may seem to be lacking in I/O ports, but in fact there are two – one output, one input – you probably hadn't thought of. You can use the printer port as an output port, with 7 separate outputs, to trigger your relays: for input, you could try wiring something up to the joystick port. The necessary connectors in both cases should be available from Maplin.

To send a byte of data (7 bits only, i.e. a value from 0 to 127) to the printer port, you could try `PRINT#8,CHR$(n);` *if you have implemented support for the strobe line – or if you're using the strobe line as another output, you can send a full 8-bit value using* `OUT &EF00,n`*. The joystick port is easy to monitor: simply use the standard BASIC* `JOY(0)` *function. All the pin-outs you need to know about are in the back of your CPC manual.*

Top Tips

The Shadows

Like last month's subroutine to spruce up BASIC text display? Good, because here's another one. This one will print a string (in MODE 1) with a shadow (always in PEN 3) behind it. Without further ado...

```
1100 'Print shadow string (a$)
1110 PLOT 16*POS(#0)-14,412-16*VPOS(#0),3
1120 TAG: PRINT a$;: TAGOFF
1130 PRINT CHR$(22)CHR$(1)a$;CHR$(22)CHR$(0)
1140 RETURN
```

To use it, simply define the string in `a$`, set the pen colour, move to the appropriate location, and use the subroutine. For example, `a$="Orange Crush": PEN 1: LOCATE 5,5: GOSUB 1100`.

No more errors!

If you want to check a piece of data for errors – after all, files do often get corrupted when transferred via modems, file transfer programs, copiers and such – you've probably come up with the solution of a 'checksum', where each byte is added up and the total used as a check. Fine, but very prone to errors: for example, if two bytes are reversed (a very common error), you'll find that the checksum remains the same.

This short Z80 subroutine will do the job. It uses a form of error-checking known as CRC (Cyclic Redundancy Check). First of all set `HL` to be zero, and then `CALL` this routine (with `E` containing the appropriate byte) to update `HL` to a new value. When you've finished, `HL` contains the CRC for the bytes you've fed in. (The routine corrupts `AF` and `B`.)

```
.crc    ld b,8
.updlp  rlc e
    adc hl,hl: jr nc,skipit
    ld a,h: xor &10: ld h,a
    ld a,l: xor &21: ld l,a
.skipit djnz updlp
    ret
```

RIP your CPC

No, not a gloomy piece about how the CPC has had its day: we're not into that sort of thing at ***AA***. Instead, a warning – apparently, if you quickly switch the tape motor relay in a CPC on and off repeatedly, then it will overheat before long.

Okay, this isn't exactly the sort of thing you're going to do too often. But, while developing a machine code program, this has occasionally happened to me by accident.

If you find yourself in the same situation, don't leave it running to see what the other bits of the program do – reset and iron the bug out immediately!

Top tape tip

It's a dead giveaway when your whizzy new game loads from tape in the same boring fashion, with Loading ANGEL DELIGHT block 1 messages and so on: kind of ruins the professional look you're aiming at, doesn't it?

Well, here's a superbly useful routine that lets you create your own custom tape loaders, complete with error checking and all. Just RUN this, and three new `CALL`s are available: `CALL &A000` to write a block of memory to tape, `CALL &A003` to read one from tape, and `CALL &A006` to verify a block.

All the `CALL`s take four parameters: the first is the memory address of the data in question, the second its length in bytes, the third the 'sync character' (a number from 0 to 255 which can be used to distinguish blocks from each other), and the fourth the (integer) variable to return the result in. For example, to write the screen to tape with sync character (say) 45 and return the result in `a%`, you would type

`a%=0: CALL &A000,&C000,&4000,45,@a%.`

The value of `a%` is 0 if no error was encountered, 1 if ESCape was pressed, 2 for an 'overrun' read/write error, 3 for corrupt data on the tape, and 4 (in the verify routine) if the data did not match.

All okay? Here's the routine. Incorporate this into your BASIC loader and you can write a professional loading system for screens, sprites, machine code, character sets and such like... most impressive!

```
10 MEMORY &9FFF
20 FOR n=&A000 TO &A03F
30 READ a$: POKE n,VAL("&"+a$)
40 NEXT n
50 DATA C3,09,A0,C3,12,A0,C3,1B,A0,CD,24
,A0,CD,9E,BC,C3
60 DATA 38,A0,CD,24,A0,CD,A1,BC,C3,38,A0
,CD,24,A0,CD,A4
70 DATA BC,C3,38,A0,FE,04,20,22,DD,7E,02
,DD,5E,04,DD,56
80 DATA 05,DD,6E,06,DD,66,07,C9,DD,6E,00
,DD,66,01,DC,47
90 DATA A0,3C,77,23,36,00,C9,3E,FF,C9,E1
,C9,43,52,54,53
```

The End

And so we come to the end of another Techie Forum. If you have any questions of a vaguely technical nature, don't send them to Reaction, send them to me at:

Technical Forum
Amstrad Action
30 Monmouth Street
BATH
BA1 2BW

If you don't do that, then those idiots Tim and Simon will get hold of the letter and who knows where we'll be. They'll print the letter in Reaction and answer it with some useless wibble about how bad the radio reception is in their office and you'll never find out what you wanted to know. Honestly, they're just a couple of... *(Snip. – Ed)* ●

Time after time

The TIME function in BASIC is useful, but it can be a bit of a pain to have to store the original value and subtract it from the later value to time how long a given process or event takes. A simple solution here: a short machine code routine to reset the time count to zero. Just `RUN` this and, from then, `CALL &AF00` will set `TIME` to equal 0.

```
10 FOR n=&AF00 TO &AF08
20 READ a$: POKE n,VAL("&"+a$)
30 NEXT
40 DATA 11,00,00,21,00,00,C3,10,BD
```

Assembly Line 3

Part four of Simon Forrester's full-on raging machine code tutorial. Like, totally excellent, man.

Hi there, and welcome back. This month, we're carrying on with our wonderful *Breakout* clone. We've just modified last month's listing slightly and you can find the fully modified version elsewhere on the page, with the various bits highlighted.

This month, you see, we've added a fab little bat into the fray. You can control it using the z and x keys, though make sure you've got CAPS LOCK turned OFF. The program won't like it on, as it won't recognize the keys. There's a simple remedy for this, that we'll look at next month, when we take a breather and tidy up the program, add a title screen, etc.

I'm afraid I'm not going to go over all the old stuff again it's been highlighted in the listing, you can find its explanation right here:

Mess about a bit

Of course, the whole idea of a tutorial such as this one is that at any point you like you can branch off from the main course slightly and start experimenting on your own. For example, try changing the bat and ball characters, the screen boundaries (by putting the whole thing in a different mode and finding out where the boundaries are checked), or basically, do absolutely anything you like!

You could even try writing a completely different style of game, applying the same sort of techniques you've seen in this series. And month after month, the more I cover of our Breakout game, the more you'll be able to do with whatever it is you're working on.

All I'm trying to say is that learning machine code is all about experimentation, so never feel afraid to mess about and tinker with things- to see what they do. With the sort of commands we've been dealing with, it would be impossible to damage your computer through typing something in – what have you got to lose?

Details of the listing

```
ld a,&01
call &bc0e
```

Ooh crikey missus – it's another one of them there new fangled firmware calls! This one is really simple though, as it's the equivalent of the MODE command in BASIC. You need the mode in the accumulator though, which is why it's set up just before the call.

```
ld a,12
ld (pbat),a
```

The reason for the positioning of these two lines are purely for neatness purposes. They are placed immediately after other variables (such as the ball's position and displacement bytes) because they are also setting up variables – the position of the bat (in text co-ordinates on the x axis).

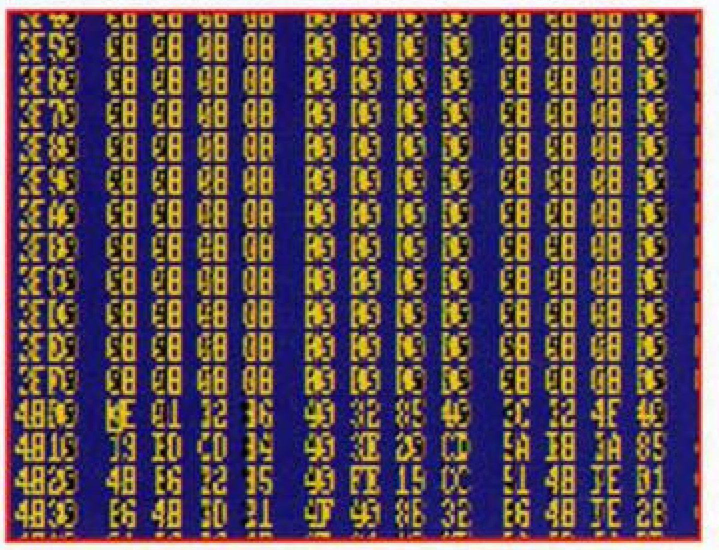
```
call batdis
```

This is a call to a routine to display the bat, which will be explained in full later.

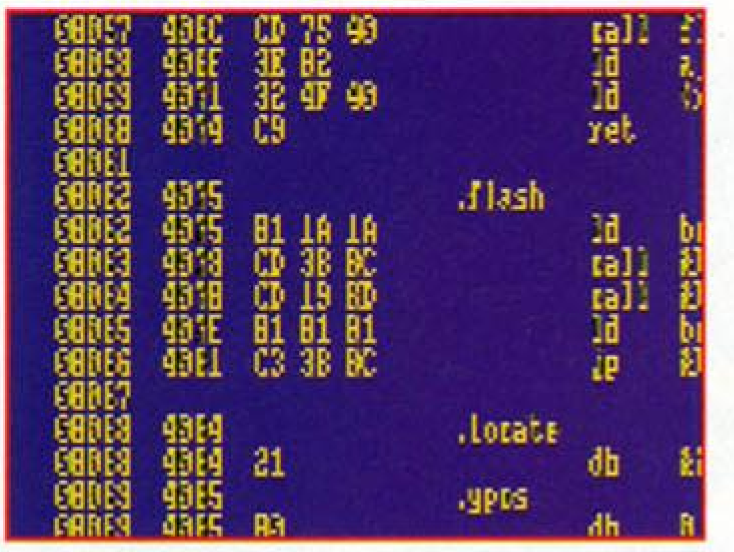
```
cp 24
call z,batdet
```

As well as detecting when the ball hits the bottom of the screen (a routine which will actually be taken out later on in the series), we need to detect when the ball is at a position on the y axis from which it could be touching the bat. This is why we check for 24 – it's the line above the bat. If it is, we call the bat detection routine (which will check to see if the x axes match).

```
.batdis
db &21
db 25
.pbat
db 0
call &bb75
```



Numbers, numbers everywhere, and not a drop to drink. Or something like that.



The ed's school colours were pretty much like this. Apparently he always hated school.

And we've got to the routine that displays the bat on the bottom line of the screen. As you can probably see, we've used the same method of storing the bat location inside a command as we did with the routine that positioned the ball last episode. The call to **&bb75** is the same – it locates the text cursor.

```
ld a,&d6
call &bb5a
ld a,&8f
call &bb5a
ld a,&d7
call &bb5a
ret
```

This is the part that actually draws the bat (made up of three ASCII characters) on the screen. If you want, you can look up the ASCII characters n the table in your manual, and maybe replace them with something you feel is more appropriate, but for now, we're going to stick with a few blocks.

```
.batlft
```

Okay, so here's the routine to move the bat left:

```
ld a,(pbat)
cp 1
ret z
```

Firstly, check the bat isn't at the far left of the screen. If it is, return so that the bat doesn't move off the screen and crash.

```
add 2
ld l,25
ld h,a
call &bb75
ld a,&20
call &bb5a
```

This bit prints a blank space on the right hand square of the bat, making sure there isn't a trail of bits of bat behind the moving object.

```
ld hl,pbat
dec (hl)
```

Oh, all right then, here you are

Okay, okay, I give in. If you're trying to do this and you still haven't got an assembler (although you'll have to get one if you want to take this seriously), here's the complete program in hex:

```
LAFI 100·DATA·3E,01,CD,0E,BC,3E,01,32,A5,40,3
     2,A4,40,3C,32,6E
LAMM 110·DATA·40,32,6F,40,3E,0C,32,AC,40,CD,A
     A,40,CD,19,BD,CD
LAOI 120·DATA·A3,40,3E,20,CD,5A,BB,3A,A4,40,3
     D,21,6F,40,86,32
LALN 130·DATA·A4,40,FE,19,CC,70,40,FE,01,CC,7
     9,40,FE,18,CC,F4
LAAI 140·DATA·40,3A,A5,40,3D,21,6E,40,86,32,A
     5,40,FE,28,CC,82
LADP 150·DATA·40,FE,01,CC,8B,40,CD,A3,40,3E,2
     A,CD,5A,BB,CD,09
LABO 160·DATA·BB,FE,7A,CC,C0,40,FE,78,CC,DB,4
     0,C3,1C,40,00,00
LAKI 170·DATA·CD,94,40,3E,00,32,6F,40,C9,CD,9
     4,40,3E,02,32,6F
LAJI 180·DATA·40,C9,CD,94,40,3E,00,32,6E,40,C
     9,CD,94,40,3E,02
LAOJ 190·DATA·32,6E,40,C9,01,1A,1A,CD,38,BC,C
     D,19,BD,01,01,01
LAAX 200·DATA·C3,38,BC,21,00,00,CD,75,BB,C9,2
     1,19,00,CD,75,BB
MALF 210·DATA·3E,D6,CD,5A,BB,3E,8F,CD,5A,BB,3
     E,D7,CD,5A,BB,C9
LAPL 220·DATA·3A,AC,40,FE,01,C8,C6,02,2E,19,6
     7,CD,75,BB,3E,20
LAPO 230·DATA·CD,5A,BB,21,AC,40,35,CD,AA,40,C
     9,3A,AC,40,FE,26
LABN 240·DATA·C8,2E,19,67,CD,75,BB,3E,20,CD,5
     A,BB,21,AC,40,34
LALL 250·DATA·CD,AA,40,C9,3A,AC,40,47,3A,A5,4
     0,B8,CA,0A,41,04
LANK 260·DATA·B8,CA,0A,41,04,B8,CA,0A,41,C9,3
     E,00,32,6F,40,C9
CANE 270·DATA·**
```

```
call batdis
ret
```

After that, all that's left to do is alter the x axis, and print the bat!

```
.batrgh
 ld a,(pbat)
 cp 38
 ret z
 ld l,25
 ld h,a
 call &bb75
 ld a,&20
 call &bb5a
 ld hl,pbat
 inc (hl)
 call batdis
 ret
```

This routine works in exactly the same way as the previous one. Any changes are purely due to the fact that he bat's travelling in a different direction.

```
.batdet
 ld a,(pbat)
 ld b,a
 ld a,(xpos)
```

In order to check whether the bat is actually touching the ball on the x axis, we need to take the bat's x position, and the ball's x position.

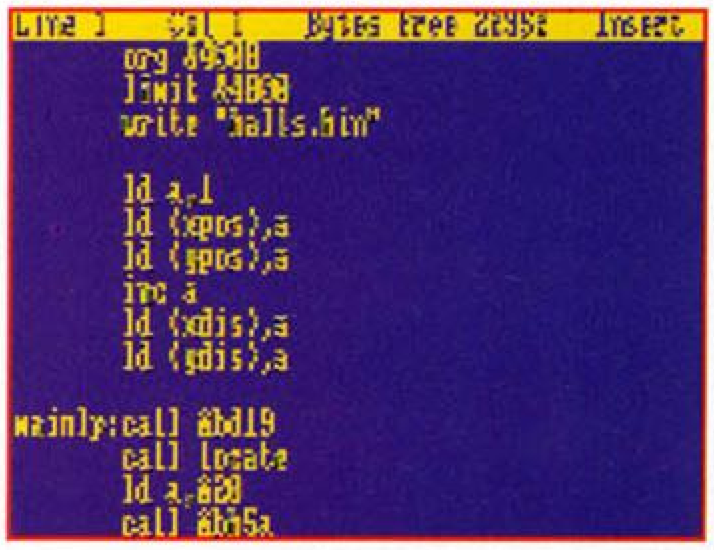
```
 cp b
 jp z,batdty
```

If they're the same, then they're touching, and we can call the routine to send the ball upwards again!

```
 inc b
```

If they're not touching, we move on to the next block of the bat,

```
 cp b
 jp z,batdty
 inc b
```



Of course, if we really loved you we'd print a picture of our Breakout game in action.

```
cp b
jp z,batdty
```

And keep repeat the process for all three blocks of the bat.

```
ret
```

If the bat and ball aren't touching however, we can let the program carry on it's merry way.

```
.batdty
 ld a,0
 ld (ydis),a
 ret
```

Remember the routine to send the ball upwards when it hit the bottom of the screen? This is exactly the same, but without the little flash – so that you can tell the difference between the ball hitting the bat or the floor.

Well, I should think that's about all we can do for this month...

Next month we'll be making our program look nice and pretty, by smartening up the graphics a bit, before we think about adding the bricks. Till then though, toodleoo. ●

The Program

```
org &4000
limit &4fff

ld a,&01
call &bc0e

ld a,1
ld (xpos),a
ld (ypos),a
inc a
ld (xdis),a
ld (ydis),a
ld a,12
ld (pbat),a

call batdis

.mainlp
call &bd19
call locate
ld a,&20
call &bb5a

ld a,(ypos)
dec a
ld hl,ydis
add (hl)
ld (ypos),a
cp 25
call z,ballup
cp 1
call z,balldn
cp 24
call z,batdet
ld a,(xpos)
dec a
ld hl,xdis
add (hl)
ld (xpos),a
cp 40
call z,balllf
cp 1
call z,ballrt

call locate
ld a,&2a
call &bb5a

call &bb09
cp "z"
call z,batlft
cp "x"
call z,batrgh

jp mainlp

.xdis
db 0
.ydis
db 0

.ballup
 call flash
 ld a,0
 ld (ydis),a
 ret
.balldn
 call flash
 ld a,2
 ld (ydis),a
 ret
.balllf
 call flash
 ld a,0
 ld (xdis),a
 ret
.ballrt
 call flash
 ld a,2
 ld (xdis),a
 ret

.flash
 ld bc,&1a1a
 call &bc38
 call &bd19
 ld bc,&0101
 jp &bc38

.locate
 db &21
.ypos
 db 0
.xpos
 db 0
 call &bb75
 ret

.batdis
 db &21
 db 25
.pbat
 db 0
 call &bb75
 ld a,&d6
 call &bb5a
 ld a,&8f
 call &bb5a
 ld a,&d7
 call &bb5a
 ret

.batlft
 ld a,(pbat)
 cp 1
 ret z
 add 2
 ld l,25
 ld h,a
 call &bb75
 ld a,&20
 call &bb5a
 ld hl,pbat
 dec (hl)
 call batdis
 ret

.batrgh
 ld a,(pbat)
 cp 38
 ret z
 ld l,25
 ld h,a
 call &bb75
 ld a,&20
 call &bb5a
 ld hl,pbat
 inc (hl)
 call batdis
 ret

.batdet
 ld a,(pbat)
 ld b,a
 ld a,(xpos)
 cp b
 jp z,batdty
 inc b
 cp b
 jp z,batdty
 inc b
 cp b
 jp z,batdty
 ret

.batdty
 ld a,0
 ld (ydis),a
 ret
```

Public Image

This is the bit where the Ed makes some amusing introductory remarks. He's on holiday, so here's Tim Blackbond with the PD stuff.

You'd better be in a news kind of mood – that's just what you're going to get. Never before have so many things happened on the PD 'scene'... In fact, this introduction alone is a waste of space... I'd better stop it. Like right now...

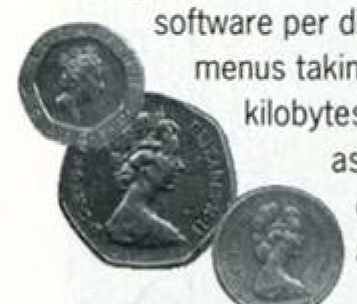
Random mutterings

Libraries 'n' stuff

PD Fun

Simon Walker of PD Fun has the first of this month's many library re-shuffles. His catalogue has had all the rubbish BASIC programs scraped out and replaced with top-quality games that some people may enjoy. PD Fun is also the first library on the CPC ever to promise 178K of software per disk. That means no irritating menus taking up eight valuable kilobytes. One disk side will cost you as little as 50p, so you really can't go wrong. Simon's address is: 41 Michealgate, Kirby Lonsdale, Via Carnforth, Lancs LA6 2BE.





Sheepsoft

Another library organisation has hit Sheepsoft HQ. The librarian, Paul Fairman now has a staggering 194 sides of software all for a deafeningly cheap 20p a side. Certainly well worth the cost of a few postage stamps.
Write to: **39 Woodlands Road, Barry, South Wales CF6 6EF**.

Presto PD

Yes, spring cleaning fever has also got into Matt Gullam of Presto PD. For the second time, he has removed all the rubbish from his library "to get rid of the stuff he missed last time". Presto PD flogs software at just 50p a disk side – Write now to: 58 Graiglywd Road, Cockett, Swansea SA2 OXA. Beware, Matt Gullam MAY be moving house AGAIN soon (within the next six weeks), although he might not. The tough decisions faced by a person that can't stay in one place for more than a minute, eh?

Presto PD, the library with the, erm, most, has just announced two new products. First up is *IFFCon*. This is a package that converts IFF picture files (Amiga, Macintosh, etc) to CPC format. Next, there's *DOSCopy* – a package that transforms MS-DOS files into AMSDOS format, and vice versa. Both titles are 25p per side, so you should be able to get both of these on one disc or a mere 50p! Oh yeah, you can also buy 3" discs from them at £1.75 each. Find Presto at 58 Graigluyd Road, Cockett, Swansea, SA2 OXA.

Spot the difference

Potential Difference is a new bimonthly fanzine designed to cover all aspects of the CPC with a very noticeable lean towards Public Domain software. For a mere 70p you get the latest issue (ie. Issue two) featuring 24 pages of neatly stapled A5 including reviews of two top PD libraries and a number of commercial budget games. There's also a run-down of the best CPC driving games available. It sounds pretty hot stuff! If you can't wait for the review then the editor, Chris Goodwin, can be contacted at: 47 All Saints Drive, North Wootton, Kings Lyn, Norfolk PE30 3RX

New Face Hugger utilities

Europe's finest programmer, Andreas Stroiczek (alias Face Hugger – The man behind *Crystal Mission*, *Power Tetris* and *The Ultimate Megademo*) has now unleashed two serious utilities into the public domain. The first is an AMSDOS alternative to the CP/M to MS-DOS file converter, *Two In One* (the one from Moonstone Software). It allows files to be ported from a CPC on to an MS-DOS format disk for use on an IBM compatible PC. Useful for doing that school/college homework at home. The second utility is another file converter, this time for those CPC artists with access to an Amiga – it converts files from the Amiga '.IFF' format to (yes, you guessed it) the good ol' CPC! Expect full reviews

Fanzine review

RundSchlag Overkill
Send three International Reply Coupons to: BIOS, PO BOX 27, W-7959 Schwendi, Germany.

Rundschlag can only be described as the International CPC Notice board. Imagine a really big house, yeah? And in this house is every CPC user in the world, RundSchlag is the cork pin-board on the kitchen wall. That's the best way it can be described. Sorry.

The first thing that hits you about the magazine is the presentation. Each of the forty pages is either poorly laid out on a DTP package or just printed from a word-processor from various people on the CPC scene. But then, you can't expect the writers to spend hours on every page when you consider that the magazine is free. The only thing you pay for is the photocopying, then like public domain software, you can re-copy it and pass it on to your friends to your heart's content.

The articles are written in a wide range of languages (including a small section of English text). If you want to know what is going on in Europe, there is enough English to keep you clued up on what is going on, the rest of it is basically coders passing messages onto fellow coders ("Matt Gullam: I like your fanzine very much!" is one of the many greetings). A demo scrolling message on paper, if you will.

If you can speak French and German, you will obviously get more for the little you pay for, however, if English is your only known dialect, you can get a small amount of information but not that much.

The idea of multi-language magazines always seems to fail in Britain (thanks to that lovely 'casual' British education system), although I'd expect they are very popular on the continent.



54%

RSVP

We'd like to know a little bit about you for our files. Fill in this form and you might get 50 quid.

General

How do you buy Amstrad Action?
- By subscription
- I just go out and buy it
- Reserved by a newsagent

In what format would you like Amstrad Action?
- £2.95 with covertape
- £2.50 with no covertape
- £2.95 with more pages and no tape

The Mag

Please mark any sections you would like us to drop with a **D**, sections you would like to see more of with an **M**, and sections you'd shrink with **S**.
- Amscene
- Serious reviews
- Technical Forum
- Type-Ins
- Interviews
- Reader Action
- Public Image
- Assembly Line
- Balrog
- Power Up
- Games reviews
- Venture Forth
- Reaction
- Cheatmode
- Small Ads

Do you enjoy the style, humour, and attitude of ***AA***?
- I love it
- It's a little immature
- It's a bit too serious
- I despise it

Okay then, what about the artwork and layout?
- It looks good and is easy to read
- It could be better

Covertapes

Do you bother with the covertape?
- Yes
- No

How do you feel about the serious software we're giving you?
- I love it
- Not bad
- It's a rip off

And the games?
- Fab
- Bearable
- Complete tosh

Would you stop buying ***AA*** if it stopped carrying tapes?
- Yes
- No

And You?

How old are you?
- Under 10
- 10 – 14
- 15 – 19
- 20 – 30
- 30 – 40
- 40 – 50
- 50 – 60
- Over 60

Are you
- At college
- At school
- In full time employment
- Unemployed
- Retired

If you are in full time employment, what is your general occupation?
- Company owner/manager
- Computer
- Crafts/Tradesperson
- Creative
- Emergency/Armed services
- Manual
- Office
- Professional

What is your approximate annual income?
- Pocket money
- Under £1000
- £1000 – £4999
- £5000 – £8000
- £8000 – £12,000
- £12,000 – £16,000
- £16,000 – £20,000
- Over £20,000

What else do you do with your leisure time?
- Cycling
- Walking
- Buying/Listening to music
- Charity/Voluntary work
- Going to pubs/clubs
- Going to see bands
- Going to the cinema
- Playing a musical instrument
- Reading
- Watching TV
- Watching/Playing sport

What are your favourite kinds of game?
- Arcade adventures
- Beat-'em-ups
- Driving games
- Platform games
- Puzzle games
- Role-playing games
- Shoot-'em-ups
- Simulations

How long have you been using a CPC?
- Up to 6 months
- Up to one year
- Up to two years
- Over two years

How long have you been reading Amstrad Action?
- Up to 6 months
- Up to one year
- Up to two years
- Over two years

What other computer magazines do you read and how would you rate them (out of ten)?

Which CPC do you have?
- CPC 6128
- CPC 664
- CPC 464
- CPC 6128+
- CPC 464+
- GX4000

What extra equipment do you own?
- External 3" drive
- External 3.5" drive
- Joystick
- Modem
- Printer
- ROMbox

What extra equipment do you intend to buy?
- External 3" drive
- External 3.5" drive
- Joystick
- Modem
- Printer
- ROMbox

What other machines do you own (**O**) or intend to buy (**B**)?
- Amiga
- Atari Lynx
- Atari ST
- C64
- Game Boy
- Game Gear
- Mega CD
- Mega Drive
- Neo Geo
- NES
- PC compatible
- PC Engine
- Sega Master System
- SNES
- Spectrum

Who are you?

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What's your address?

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Please tick here if you do not wish to receive direct mail from other companies. ■

Please take a few minutes to fill in the form and send it to:
Amstrad Action
Reader Survey 1993
Monmouth Street
Bath
BA1 2BW

If yours is the form we pull out of our massive and attractively decorated hat, you'll get

£50

Hurrah.



I can't believe it's a PD program. That sounds like a good idea for a TV ad campaign. Hire me some cows.

on each of these utilities very soon indeed...

Sex, lies and Amstrad fun

The Irish fanzine, Amstrad Fun, has been printing malicious lies about various British PD libraries without first checking the integrity of the information. The one page feature, entitled 'Which PD Libraries Are Your Disks Safe With' starts by warning Richard Fairhurst not to re-open his library due to his slowness in returning orders (which, given his past record, is fair enough) and then moves on to accusing PD Fun of being 'a certain death wish' to order from. Simon, who was shocked when hearing the news said: "What profit is there to be gained from not returning disks? It just gives a library a bad name".

Also on the black list are Presto PD, accused of not returning disks, even though the editors haven't bothered to get in touch with Matt himself and find out the truth. Finally, the Sheepsoft librarian, Paul Fairman gets more than enough evidence to get together a reasonable libel case. The verbal stoning goes into the library name deriving from the fact that Paul has the brains of a sheep (allegedly) and is the most arrogant, rude and insulting person on the planet. Throughout the feature, the phrase 'From what we have heard' gets regular use. Far be it for me to have a guess at the source of the information, but the magazine's main contact does have the initials DH... Well, it's just a theory.

Irish power trippin'

A number of PD librarians have complained about the arrogant behaviour offered by the Amsof PD librarian, Derek Hyland. Apparently, Mr. Hyland believes that any libraries that are not called 'Amsof PD' are not worthy of custom. A small warning to Derek, you will not be popular at all if you carry on as you are. Remember Alan Scully?

Commercial blues – part two

There is a lot of controversy about several German games that are appearing in the public domain libraries across Britain. Although being around for a while, Drehdriss began life as a listing in the German CPC Amstrad International magazine, and is therefore protected under copyright. There is also a lot of confusion over the games *Puzznix* and *Power Tetris*. No one has managed to agree on the 'PD-ness' of those games yet. Even though CPCAI is a defunct magazine, there are rumours that it will be re-launched. If so, British PD libraries had better watch out...

More PD

I've been on at the management (Tim N, mostly) to give me some more room for the PD column. To judge from your letters, you seem to think that the PD scene is a pretty important part of the CPC world and I think I agree with you.

Anyway, Tim's agreed that Public Image can have an extra page, but only if it's dead good. so I need your help. If you run a PD library – let me know and I'll take a look at your collection. If you write PD software – let me know and I'll review it.

Anyway, that's your lot till next month. ●

The box with no name

Wow! And there'll probably be more next month! I need a lie down...

Thank you for the letters, free disks, fanzines, etc. There's bound to be more out there than I've already managed to look at, so please keep them, coming – I'll find space for them all soon.

And that address:

Amstrad Action
30 Monmouth Street
Bath
BA1 2BW

...And please, DO NOT forget to mark your envelopes CLEARLY with PUBLIC IMAGE. I thank you, good night...

Software review

RUN VT!
By Michael Beckett

Camcorders. Yes, the things that gave Jeremy Beadle another idea for a TV series are becoming more and more popular, but what do you do when you want to put nice, professional titles on your home masterpieces? As always, there's the public domain solution...

Run VT! was written as an upgrade to a listing printed in the July 1990 issue of Amstrad Action, as part of the big Multimedia special. In a nutshell, it allows the user (that's you, mates) to design a slideshow of screens which can then be placed at the beginning of a video cassette. Just think, no more frantic hunting for the televised version of the classic 1957 book by Richard Bertram Coles, 'Skin Diseases for Beginners'...

The top of Mr. Beckett's agenda when writing Run VT! was obviously to make it user-friendly. To make sure of this, the program utilises a smooth and incredibly well programmed pointer-system. There are no less than eleven main options to choose from, all chosen by simply moving the pointer over the box and jabbing the COPY key. The options allow you to: Create a new sequence, add frame, delete frame as well as frame manipulation and disk/file utilities.

The frame editor only allows text and block graphics (situated on the numeric keypad) to be placed on the screen (sort of like PageMaker Plus on one screen, only much more useful). Also, by placing a dot at the beginning of a line, double height and width text can be used, in order to outline main titles. When a frame is finished, a menu pops-up which allows you to set the method of fade-in, the length of time it stays on the screen and the method for fade-out. There are a total of seven fade methods, including a normal clear screen, horizontal wipe, vertical wipe and screen disintegration.

When a sequence is completely finished, it can then be ported across to a video cassette. For this bit, you will need a lead (available from WAVE or as a hardware project in the July 1990 Amstrad Action) connecting your CPC to a video cassette recorder and a video cassette that is badly in need of titling. Then, the contents of the screen are recorded onto the video cassette. You are prompted when to start and stop the video recording.

For the true home-movie buff, you can't quite reach perfection without the use of Run VT!, however, those who don't have videos to title have a rather limited text-based art-package. It is just a shame that screen files can't be incorporated into the slideshow along with the text. Oh well, you can't have everything I s'pose...

92%

Back Issues

Sold out! Issues 1-65 ● Still available! Issues 66, 75-85



Issue 86: Feature on Alternative's kid's TV licences plus review of the *Picasso* art package. On the tape – *Glider Rider* (full game), MIDI demo and three utilities.



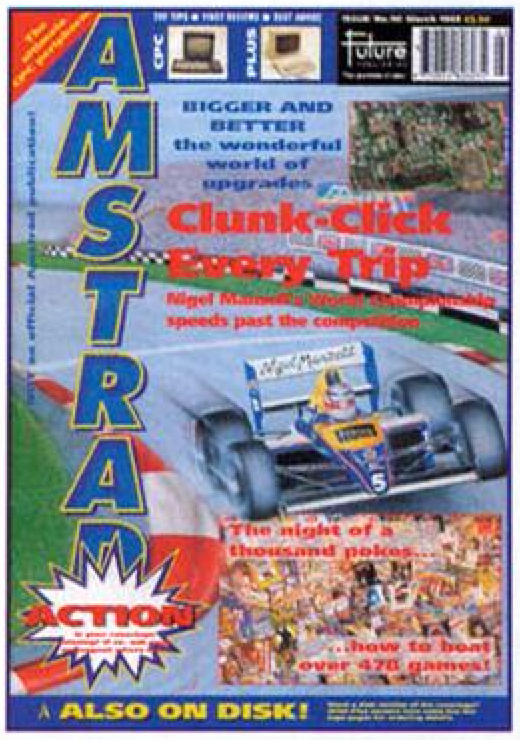
Issue 87: Inside – the complete history of Dizzy and review of the Amstrad NC100 notepad. And! *Football Manager 3* reviewed. Full game of *Nexor* on the tape.



Issue 88: Two complete games on the tape – *Tankbusters* and *Penguins*. Inside, *Videomaster*, *Robin Hood: Legend Quest* and *Crystal Kingdom Dizzy* reviewed.



Issue 89: Inside – Buyers' Guide to disk drives, a look at CPC-stretching demos and *Crazy Cars 3* reviewed. Plus! *Wriggler* and three great utilities on the covertape.



Issue 90: The world's hugest collection of Multiface pokes (more than 478 of them). On the tape: *Steve Davis Snooker* (full game) and *LARA* (m/code utility).



Issue 91: All the dirt on who's doing what in the CPC world.HackIt black box of tricks reviewed. On the tape: *Tasword* (word processor) and *Colossus Chess 4*.



Issue 92: Just how do those floppy disc things work? Plus a review of the first 3.5 inch A: drive. On the tape: *BooTracker* (music utility), *SYNTAX* and *Balloon Buster*.



Issue 93: 101 interesting things to do with business software. Reviewed: *Super Cauldron*, Amstrad Pen Pad. On the tape: *Racing BoxForm*, *Mystical*, *Balrog*.

Amstrad Action Back Issues

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Type-ins

Oh my hat, look at this lot! Readers's type-in programs aplenty for you to spend a few hours over. Splendid.

Staves

This little progette comes courtesy of Ted English. It's very short, and prints lots of lovely musical staves on the printer (if you've got one).

```
HAFL 10·REM·Staves.··T.English
FACB 20·AFTER·6375·GOSUB·90
IACM 30·PRINT·#8,CHR$(27)"A"CHR$(5)CHR$(27)"E
     "
KAOK 40·FOR·a=1·TO·5:PRINT·#8,STRING$(78,95):
     NEXT
JAMA 50·FOR·b=1·TO·3:PRINT·#8,CHR$(10):NEXT
KACL 60·FOR·c=1·TO·5:PRINT·#8,STRING$(78,95):
     NEXT
JABB 70·FOR·d=1·TO·4:PRINT·#8,CHR$(10):NEXT
EAGK 80·GOSUB·40:RETURN
DAKH 90·END:RETURN
```

Graphic

It's by Mark Holmes, and that's all I'm going to tell you. I like an air of mystery.

```
IABC 10·'·GRAPHIC·-·By·Mark·Holmes
AAJK 20·'
IAOJ 30·'·For·Amstrad·Action·-·1993
AALK 40·'
MAAE 50·MODE·2:LOCATE·1,1:PRINT·"P·L·E·A·S·E·
     ···W·A·I·T·.·.·.·.·"
JCID 60·ORIGIN·320,200:DEG:DEFINT·a-q,s-z:DIM
     ·h(401):FOR·a=0·TO·400:h(a)=-1000:NEXT:F
     OR·y=100·TO·-90·STEP·-10:x=100:GOSUB·120
     :x1=y-100:y1=(-x-y)/2+z:FOR·x=100·TO·-10
     0·STEP·-1
JBGA 70·GOSUB·120:MOVE·x1,y1:x1=y-x:y1=(-x-y)
     /2+z:IF·y1<h(x1+200)·THEN·80·ELSE·h(x1+2
     00)=y1:DRAW·x1,y1
HAND 80·IF·x·MOD·10=0·THEN·GOSUB·100
EAGB 90·NEXT·x,y:END
ICEF 100·x2=y-x:y2=(-x-y)/2+z:b=y:FOR·a=y-1·T
     O·y-10·STEP·-1:y=a:GOSUB·120:MOVE·x2,y2:
     x2=a-x:y2=(-x-a)/2+z:IF·y2<h(x2+200)·THE
     N·110·ELSE·h(x2+200)=y2:DRAW·x2,y2
FANF 110·NEXT:y=b:RETURN
KAKO 120·r=SQR((x*5)↑2+(y*5)↑2):IF·r=0·THEN·r
     =0.01
KAGE 130·z=(SIN(r)/r)*5000+(COS(x*5)+COS(y*5)
     )*10
CAFJ 140·RETURN
```



Number Shooter

Okay, shoot the numbers with this fab game from Abdul Kayum. I really can't believe I'm getting paid for writing these introduction paragraphs.

```
EAFL 10·'NUMBER·SHOOTER
EAMG 20·'(C)·ABDUL·KAYUM
CAAE 30·'AGED·14
DAJB 40·'APRIL·1993
DANK 50·CLS:hsc=100
CAOL 60·GOSUB·530
CAOL 70·GOSUB·250
CADM 80·GOSUB·380
FANF 90·'MOVEMENT·AND·TIME
HAFH 100·LOCATE·x,y:PRINT·CHR$(240)
JAPJ 110·LOCATE·15,25:PEN·3:PRINT"TIME:·";ti
IAJD 120·IF·INKEY(27)>-1·THEN·130·ELSE·140
FBDJ 130·PEN·1:LOCATE·x,y:PRINT"·":IF·x>39·TH
     EN·x=2·ELSE·x=x+1:LOCATE·x,y:PRINT·CHR$(
     240)
IADE 140·IF·INKEY(67)>-1·THEN·150·ELSE·160
FBFJ 150·PEN·1:LOCATE·x,y:PRINT"·":IF·x<2·THE
     N·x=39·ELSE·x=x-1:LOCATE·x,y:PRINT·CHR$(
     240)
LAAE 160·IF·INKEY(47)>-1·THEN·GOSUB·180·ELSE·
     GOTO·170
JAGE 170·ti=ti-1:IF·ti=0·THEN·570·ELSE·110
IALK 180·y=22:LOCATE·x,y:PEN·3:PRINT"."
PAEF 190·ti=ti-1:IF·ti=0·THEN·570·ELSE·LOCATE
     ·x,y:PEN·3:PRINT"."
HAJJ 200·LOCATE·x,y:PRINT"·":y=y-1
FABO 210·LOCATE·x,y:PRINT"."
HAOK 220·IF·y=5·THEN·GOTO·230·ELSE·190
MABH 230·IF·y=5·AND·x=R·THEN·GOSUB·450·ELSE·Y
     =24:GOTO·80
CAHH 240·GOTO·80
DACM 250·'SCOREBOARD
IAAG 260·PEN·2:LOCATE·5,1:PRINT·CHR$(150)
HALC 270·LOCATE·35,1:PRINT·CHR$(156)
GAMP 280·LOCATE·5,4:PRINT·CHR$(147)
HANC 290·LOCATE·35,4:PRINT·CHR$(153)
KALI 300·FOR·i=6·TO·34:LOCATE·i,1:PRINT·CHR$(
     154)
IABK 310·LOCATE·i,4:PRINT·CHR$(154):NEXT
KANF 320·FOR·i=2·TO·3:LOCATE·5,i:PRINT·CHR$(1
     49)
IALN 330·LOCATE·35,i:PRINT·CHR$(149):NEXT
KAJP 340·PEN·3:LOCATE·13,2:PRINT"NUMBER··SHOO
     TER"
JAFE 350·PEN·1:LOCATE·6,3:PRINT"SCORE:·";SC
JAKA 360·LOCATE·20,3:PRINT"HI-SCORE:·";HSC
CAKJ 370·RETURN
EAPN 380·'RANDOM·NUMBERS
KABB 390·LOCATE·1,5:PRINT"····················
     ····················"
DAFD 400·TL=5:PEN·2
JAHI 410·R=INT(RND*39):IF·r=0·OR·r=1·THEN·410
IAJN 420·NUM=INT(RND*10):IF·NUM=0·THEN·420
GACO 430·LOCATE·R-1,TL:PRINT·NUM
EAGA 440·PEN·1:RETURN
CAFP 450·'SCORING
KAPA 460·LOCATE·1,5:PRINT"····················
     ····················"
EANE 470·SOUND·5,150,4,15
DAAE 480·SC=SC+NUM
HAEE 490·LOCATE·14,3:PEN·1:PRINT·SC
IAEH 500·IF·SC>HSC·THEN·GOTO·510·ELSE·520
IAAA 510·HSC=SC:LOCATE·30,3:PRINT·HSC
FALF 520·y=24:PEN·1:RETURN
FAAA 530·'INITIALISATION
GAIL 540·x=20:y=24:sc=0:ti=1000
NAPM 550·BORDER·0:INK·0,0:PAPER·0:INK·1,26:IN
```

```
     K·2,21:INK·3,6:PEN·1
CALJ 560·RETURN
DAJK 570·'END·OF·GAME
FAKD 580·CLS:INK·1,6,2:PEN·1
HAKK 590·LOCATE·16,10:PRINT"TIME·UP!"
EBEM 600·IF·HSC>SC·THEN·610·ELSE·LOCATE·5,12:
     PRINT"YOU·HAVE·A·HIGH·SCORE·OF·";HSC:GOT
     O·620
KAHO 610·LOCATE·9,12:PRINT"SORRY,·NO·HIGH·SCO
     RE!"
NAKL 620·LOCATE·4,14:PRINT"WOULD·YOU·LIKE·ANO
     THER·GO?·(Y/N)"
CAPP 630·A$=INKEY$
EAHF 640·IF·A$=""·THEN·630
JADD 650·IF·A$="Y"·OR·A$="y"·THEN·CLS:GOTO·60
JAFK 660·IF·A$="N"·OR·A$="n"·THEN·CLS:PEN·2:E
     ND
CAPK 670·GOTO·630
```

Function Keys

Two really snazzy little programs – one allows you to create a file of function key definitions, and the other allows you to reload the file. And you've got Tom Ford to thank for that lot!

```
OAAA 10·'·FUNCTION·KEY·DEFINER·AND·READER·-·b
     y·T.FORD·age·13
FAHJ 20·'·AA·is·the·best!
CAHK 30·'DEFINER
BBJG 40·PRINT"THIS·PROGRAM·DEFINES·THE·FUNTIO
     N·(F)·KEYS·ON·THE·KEYBOARD"
DALH 50·FOR·f=0·TO·9
CAKF 60·k=f+128
BCED 70·PRINT"Input·command·for·F";f:INPUT·a$
     (f):INPUT"Suffixed·by·return";ch$:IF·ch$
     ="y"·THEN·KEY·k,a$+CHR$(13):b(f)=1
IAJG 80·IF·ch$="n"·THEN·KEY·k,a$:b(f)=0
IACG 90·IF·ch$<>"n"·AND·ch$<>"y"·THEN·70
FAGC 100·IF·b=1·THEN·b(f)=1
BABP 110·NEXT
GAJP 120·INPUT"filename";fl$
HAKF 130·IF·LEN(fl$)>8·THEN·GOTO·120
EAEG 140·fl$=fl$+".KEY"
DAGP 150·OPENOUT·fl$
DAKK 160·FOR·c=0·TO·9
FAGG 170·WRITE·#9,a$(c),b(c)
BAIP 180·NEXT
DAIC 190·CLOSEOUT
```

```
OAAA 10·'·FUNCTION·KEY·DEFINER·AND·READER·-·b
     y·T.FORD·age·13
FAHJ 20·'·AA·is·the·best!
CANF 30·'READER
GAKM 40·INPUT"filename";fl$
EAED 50·fl$=fl$+".KEY"
DAFG 60·OPENIN·fl$
DANH 70·FOR·f=0·TO·9
FABE 80·INPUT·#9,a$(f),b(f)
CANF 90·k=f+128
JADB 100·IF·b(f)=1·THEN·KEY·k,a$(f)+CHR$(13)
HACD 110·IF·b(f)=0·THEN·KEY·k,a$(f)
BACP 120·NEXT
CABM 130·CLOSEIN
```

Music Maker

It's a musical keyboard, right, from Matthew Cox, and you can play little tunes on it! Wow! Fab! *(You're fired. – Ed)*

```
MCBC 1·MODE·0:PEN·1:BORDER·14:INK·0,14:CLS:PR
     INT:PRINT·"·····Music·Maker":PRINT:PRINT
     ·"···By·Matthew·Cox":PRINT:PRINT·"···Pre
     ss·Enter·to":PRINT:INPUT·"·······Start"
     ;·a$
FAJF 2·IF·a$="·"·THEN·GOTO·19
GALG 3·IF·NOT·a$="·"·THEN·GOTO·19
FAOC 19·REM·Home·Organ
EAJP 20·ON·BREAK·GOSUB·410
BALP 50·MODE·1
CAJM 60·BORDER·14
CAKE 70·INK·0,14
HAII 80·INK·1,26:INK·2,0:INK·3,13:PEN·3
GAJN 90·ORIGIN·0,0,8,631,16,200:CLG·1
LAOE 100·MOVE·0,16:DRAW·639,16,3:MOVE·0,200:D
     RAW·639,200
LALG 110·b$="QWERTYUIOP@[":w$="·ASDFGHJKL:;]"
     :p=1
FAOP 120·FOR·i=8·TO·632·STEP·48
FAGL 130·MOVE·i,16:DRAW·i,200
NACF 140·MOVE·i+12,40:TAG:PRINT·MID$(w$,p,1);
     :TAGOFF:p=p+1
BAFP 150·NEXT
GAJB 160·MOVE·630,16:DRAW·630,200
MAPN 170·FOR·x=0·TO·11:IF·x=3·OR·x=6·OR·x=10·
     THEN·GOTO·190
CAEP 180·GOSUB·380
BAJP 190·NEXT
CANO 200·GOSUB·290
DAJB 210·LOCATE·1,1
KAED 220·REM·notes·are·in·range·1·to·21
IALH 230·k$=INKEY$:IF·k$=""·THEN·GOTO·230
IAHG 240·k=ASC(k$):IF·k>21·THEN·GOTO·230
HAGN 245·x=k-7:GOSUB·401:SOUND·1,px
CAGK 260·GOTO·230
BAAJ 270·END
KAFF 280·REM·Subroutine·define·keys
KAPI 290·KEY·DEF·67,0,1:KEY·DEF·69,0,2:KEY·DE
     F·59,0,3
KAAI 300·KEY·DEF·60,0,4:KEY·DEF·58,0,5:KEY·DE
     F·61,0,6
KAII 310·KEY·DEF·53,1,7:KEY·DEF·51,1,8:KEY·DE
     F·52,1,9
LAHA 320·KEY·DEF·43,0,10:KEY·DEF·44,0,11:KEY·
     DEF·45,0,12
LACB 330·KEY·DEF·35,0,13:KEY·DEF·37,0,14:KEY·
     DEF·34,0,15
LAAC 340·KEY·DEF·36,0,16:KEY·DEF·27,0,17:KEY·
     DEF·29,0,18
LAHB 350·KEY·DEF·28,0,19:KEY·DEF·17,0,20:KEY·
     DEF·19,0,21
CAJJ 360·RETURN
JAHO 370·REM·Subroutine·black·keys
JAPI 380·ORIGIN·0,0,x*48+40,x*48+72,94,198:CL
     G·2
MACN 390·MOVE·x*48+48,120:TAG:PRINT·MID$(b$,x
     +1,1);:TAGOFF
CAEJ 400·RETURN
FAMF 401·fx=440*2↑((x-10)/12)
EAAB 402·px=125000/fx
CAHJ 403·RETURN
HAIB 410·CALL·&BB00:REM·RESET·KEYS
CAMH 420·INK·0,26
DAKP 430·KEY·0,"list
AACC "
CAOH 440·INK·1,25
BAPP 450·STOP
```

Height

In the same vein of text printing *(You've really thought these out, haven't you? – Ed)*, we've got a rather nifty little routine from Mark Holmes of Devon that prints text in a variety of sizes on the screen. The program's pretty self-explainatory, and it should be quite easy for you to incorporate the routine into your own programs (but remember to credit Mark).

```
HAMN 10·'·HEIGHT·-·By·Mark·Holmes
AAJK 20·'
IABF 30·'·For·Amstrad·Action·1993
AALK 40·'
BALP 50·MODE·1
IACN 60·SYMBOL·AFTER·256:SYMBOL·AFTER·32
BANL 70·PEN·3
LADA 80·text$="Quadruple·Height·text"
GAHP 90·xp=3:yp=1:h=4:GOSUB·260
AALO 100·:
BAHO 110·PEN·2
JALO 120·text$="Triple·Height·text"
HABF 130·xp=3:yp=10:h=3:GOSUB·260
AAPO 140·:
BAKO 150·PEN·1
JAKN 160·text$="Double·Height·text"
HAMF 170·xp=3:yp=18:h=2:GOSUB·260
BANO 180·PEN·1
JALO 190·text$="Normal·Height·text"
HACF 200·xp=3:yp=24:h=1:GOSUB·260
GADL 210·CALL·&BB18:LOCATE·1,1:END
AAOO 220·:
HALH 230·'·Printing·Routine.
KACK 240·'···Parameters:·(text$,h,xp,yp)
AABP 250·:
GAEP 260·FOR·ch=1·TO·LEN(text$)
GABH 270·ch$=MID$(text$,ch,1)
CADP 280·GOSUB·360
DAEP 290·FOR·y=1·TO·h
FAKI 300·LOCATE·xp,yp+y-1
FAPC 310·PRINT·CHR$(247+y);
CANI 320·NEXT·y
DAPB 330·xp=xp+1
CABO 340·NEXT·ch
CAIJ 350·RETURN
IABA 360·p=UNT(HIMEM+(ASC(ch$)-32)*8+1)
FAPA 370·b=UNT(HIMEM+1729)
DACM 380·FOR·y=0·TO·7
DAGP 390·FOR·z=1·TO·h
EAHH 400·POKE·b,PEEK(p)
CACB 410·b=b+1
CAPI 420·NEXT·z
CAAD 430·p=p+1
CAAJ 440·NEXT·y
CAJJ 450·RETURN
```

Lawnmower Simulator

Okay, enough of the nice short listings. This time, we've got two absolutely humungous programs by one Xen (we do have his real name, but believe be, Xen is better!?!). The first is an absolutely fab lawn mower simulator, and the second is a defend the planet type game. All instructions are included in the program, so without further ado, it's time to start a nail-breaking mammouth type-in sesh. We would like to point out, though, that Future Publishing takes no responsibility for anyone suffering exhaustion after typing these listings, or damage to cuticles in the process.

```
NAJJ 10·'·Professional·Lawnmover·Simulator!
ABKN 20·'·©·1993·by·XEN·(not·helped!)·Levels·
     by·XEN·and·Dutch
HADI 30·'·Oh,·yeah·-·this·is·@&#$!
LABB 40·'·Good·graphics·(not)·done·here
CANK 45·RESTORE
GAII 50·DEFINT·a-o:DEFINT·q-z
EAIL 60·ENT·-7,7,10,1,7,-10,1
HAHO 70·SYMBOL·255,24,36,36,24,22,216,48,16
HAFJ 80·SYMBOL·254,60,36,66,66,66,126,255
```

```
IAGB 90·SYMBOL·253,64,160,80,80,40,60,62,127
GAMP 100·SYMBOL·252,2,5,10,10,20,60,124
HAAM 110·SYMBOL·251,221,0,119,0,221,0,119,0
HAKG 120·SYMBOL·250,8,40,32,40,8,40,32,40
JAEH 130·sg$=CHR$(14)+CHR$(3)+"·"+CHR$(14)+CH
     R$(0)
MANB 140·MODE·1:INK·1,24:INK·0,9:INK·2,3:BORD
     ER·9:INK·3,18
FAAJ 150·u$=""+CHR$(254):d$=u$
DAOO 160·l$=""+CHR$(252)
DAGP 170·r$=""+CHR$(253)
FAHC 180·plant$=CHR$(255)
IAON 190·man$=CHR$(249):walla$=CHR$(251)
FABC 200·wallu$=CHR$(250)
LAAM 210·PAPER·2:PRINT·STRING$(40,plant$);:PA
     PER·0
OBMF 220·FOR·a=2·TO·24:LOCATE·1,a:PAPER·2:PRI
     NT·plant$;:PAPER·0:PRINT·STRING$(38,"·")
     ;:PAPER·2:PRINT·plant$;:PAPER·0:NEXT
KBAG 230·LOCATE·1,25:PAPER·2:PRINT·STRING$(40
     ,plant$);:PAPER·0:plant$=CHR$(14)+CHR$(2
     )+CHR$(255)+CHR$(14)+CHR$(0)
DAMH 240·LOCATE·10,10
EBEC 250·WINDOW·#0,3,38,3,23:PRINT·"··Profess
     ional·Lawnmower·Simulator·"
BBPK 260·PRINT:PRINT·"You,";r$;",·must·cut·al
     l·the·long·grass";
PAKM 270·PRINT·"without·hitting·anybody,·plan
     ts·or"
EAPO 280·PRINT·"walls!"
LANC 290·PRINT:PRINT"Controls·are:-":PRINT
EAPE 300·PRINT"Up···:-·A
EAMP 310·PRINT"Down·:-·Z
EACN 320·PRINT"Left·:-·<
FAIC 330·PRINT"Right:-·>
MAND 340·PRINT:PRINT·"Or·joystick·(in·port·0)
     "
LANH 350·PRINT:PRINT·"Press·<SPACE>·to·play!"
FACP 360·IF·INKEY$<>"·"·THEN·360
GAEM 370·DIM·level(40,25):MODE·1
KAEB 380·FOR·a=1·TO·25:READ·lev$:FOR·b=1·TO·4
     0
CBPL 390·z=VAL(MID$(lev$,b,1)):level(b,a)=z:I
     F·z=0·THEN·count=count+1
FADO 400·IF·prev=z·THEN·490
DAJC 410·prev=z
EABO 420·IF·z=0·THEN·a$="·"
GACM 430·IF·z=1·THEN·a$=plant$
GAKM 440·IF·z=2·THEN·a$=wallu$
GAIL 450·IF·z=3·THEN·a$=walla$
FAFO 460·IF·z=4·THEN·a$=man$
FAFI 470·IF·z=5·THEN·a$=sg$
LAML 480·IF·z=6·THEN·a$="·":x=b:y=a:level(x,y
     )=0
DAKC 490·PRINT·a$;
OAHE 500·NEXT·b,a:dir=0:cut=1:sc=sc+cut:p=100
     /count
GANF 510·LOCATE·x,y:PRINT·l$;
DBPI 520·LOCATE·1,1:PRINT·"Score:";sc:LOCATE·
     28,1:PRINT·"Done:";INT(cut*p);"%";
FALH 530·FOR·a=1·TO·100:NEXT
LABB 540·IF·INKEY(71)>-1·OR·INKEY(73)>-1·THEN
     ·dir=1
LAJB 550·IF·INKEY(69)>-1·OR·INKEY(72)>-1·THEN
     ·dir=2
LADB 560·IF·INKEY(31)>-1·OR·INKEY(75)>-1·THEN
     ·dir=3
LAMB 570·IF·INKEY(39)>-1·OR·INKEY(74)>-1·THEN
     ·dir=4
EAJH 580·SOUND·2,3200,5,12
IADE 590·IF·dir=1·THEN·dy=y+1:dx=x
IAOD 600·IF·dir=2·THEN·dy=y-1:dx=x
IAOD 610·IF·dir=3·THEN·dx=x+1:dy=y
IACE 620·IF·dir=4·THEN·dx=x-1:dy=y
FAKB 630·IF·dir=0·THEN·520
LABA 640·LOCATE·x,y:level(x,y)=5:PRINT·sg$;
PAPL 650·x=dx:y=dy:z=level(x,y):IF·z>0·AND·z<
     5·THEN·GOTO·710
ABKB 660·IF·z=0·THEN·cut=cut+1:sc=sc+1:IF·cut
     =count·THEN·780
JAOP 670·LOCATE·x,y:IF·dir<3·THEN·PRINT·u$
GAOM 680·IF·dir=3·THEN·PRINT·r$
GAKM 690·IF·dir=4·THEN·PRINT·l$
CAHK 700·GOTO·520
BAKJ 710·CLS
LCGK 720·PRINT·"Well,·that·was·an·unfortunate
     ··accident.You·hit·something,·and·it··da
     maged··yourblades,·sending·you·to··the··
     job··cen
FAKN 730·PRINT·"working."
NAIA 740·PRINT:PRINT·"Your·score·was:-";sc:PR
     INT
BBBK 750·PRINT·"Which·was:";:PRINT·USING·"##.
     ###";cut*p;:PRINT·"%":PRINT
GACO 760·PRINT·"Press·<SPACE>!"
NABA 770·IF·INKEY$<>"·"·THEN·770·ELSE·ERASE·l
     evel:GOTO·10
KCOB 780·CLS:PRINT·"Well·Done!!··Your··employ
     er··is··pleasedwith·the·work·you·have··d
     one,··and··hasgave·you·another·lawn·to·m
     ow!":GOT
DAAF 790·'·Level·1
JAKJ 800·DATA·1111111111111111111111111111111
     111111111
JAFH 810·DATA·1000000000000000000000000000000
     000000001
JAGH 820·DATA·1000000000000000000000000000000
     000000001
JAPH 830·DATA·1000200010000001000000000010001
     000020001
JAKI 840·DATA·1000200011111001000000004010001
     110020001
JAPH 850·DATA·1000200000000001000000000010000
     000020001
JAAI 860·DATA·1000200000000001000000000010000
     000020001
JANK 870·DATA·1000333333333001000000000010033
     333330001
JAAI 880·DATA·1000000000000000000004000000000
     000000001
JANH 890·DATA·1000000000000000000000000000000
     000000001
JAJH 900·DATA·1000000000400000000000000000000
     000000001
JAMH 910·DATA·1000000000000000000006000000000
     000000001
JAAJ 920·DATA·1000111111100111110001111100111
     111110001
JABJ 930·DATA·1000111111100111110001111100111
     111110001
JABI 940·DATA·1000200040000000000000000000000
     000020001
JAGI 950·DATA·1000200000000000000000004000004
     000020001
JAGJ 960·DATA·1000200011111111111111111111111
     000020001
JAAI 970·DATA·1000200000000000000000000000000
     000020001
JAAJ 980·DATA·1000200000001111111111111110000
     000020001
JACI 990·DATA·1000200000000000000000000000000
     000020001
JAAO 1000·DATA·1000333333400003333333330000000
     3333330001
JAOJ 1010·DATA·1000000000000000000000000000000
     0000000001
JAPL 1020·DATA·1000111111111111111111111111111
     1111110001
JAAK 1030·DATA·1000000000000000000000000000000
     0000000001
JAHM 1040·DATA·1111111111111111111111111111111
     1111111111
DAHJ 1050·'·level·2
KAJB 1060·DATA·3333333333333333244233333333333
     3333333333
JAOK 1070·DATA·2002000000000000000006000000000
     0000000002
JAHM 1080·DATA·2002001111111111111111111111111
     1111110002
JABM 1090·DATA·2002000001111111111111111111111
     1100000002
JAGL 1100·DATA·2002040000000011111111111114000
     0000000002
JAHK 1110·DATA·2002000000000040000000000000000
     0000000002
JAAM 1120·DATA·2002000400001111111111111111111
     1100004002
JAHK 1130·DATA·2002000000000100000000000000000
     0100000002
JAML 1140·DATA·2002040000000101111111111111111
     0100000002
JAML 1150·DATA·2002000040001014400000000000001
     0100040003
JAKL 1160·DATA·2002000000000101111111111111001
     0100000004
JAKL 1170·DATA·2002000333301000000000000000001
     0100000004
JAOM 1180·DATA·2002000244201111111111111111111
     0100400003
JAIL 1190·DATA·2002000333300000000000000000000
     0100000002
JALL 1200·DATA·2002000000001111111111111111111
     1100004002
JAEK 1210·DATA·2002000000000000000000000000000
     0000000002
KAJA 1220·DATA·2003333333333333333333333333333
     3333333002
JAIK 1230·DATA·2000000000000020000000200000000
     0000000002
JAEL 1240·DATA·2000000000200000002000000000002111
     1111110002
KAMA 1250·DATA·2003333333333333333333333333333
     3333333002
JAJK 1260·DATA·2002000000000000000000000000000
     0000000002
JAOL 1270·DATA·2002001110011100111001110011100
     0111110002
JAPL 1280·DATA·2002001110011100111001110011100
     0111110002
JAMK 1290·DATA·2002000000000000000000000000000
     0000000002
KAGB 1300·DATA·3333333333333333333333333333333
     3333333333
DAHH 1310·'·Level·3
KAIB 1320·DATA·3333333333333333333333333333333
     3333333333
JAFK 1330·DATA·2000000000000000000000000000000
     0000000002
JABL 1340·DATA·2000000000000000000011111111110
     1000000002
JACL 1350·DATA·2001100110011001100110000000000
     1000000002
JAKL 1360·DATA·2001100110011001100110111111110
     1000000002
JAKK 1370·DATA·2000000000000000000000000000000
     1000000002
JAHL 1380·DATA·2000010000000100000001111101111
     1000000002
JAFL 1390·DATA·2000000000000000000000000101040
     0004000002
JAHL 1400·DATA·2000111111111111111111000101010
     0000000002
JAMK 1410·DATA·2000000000001000000000000101010
     0000040002
JAKL 1420·DATA·2000040400001000040400000101010
     0010000002
JANL 1430·DATA·2000000411111111040400000100010
     0000000003
```

```
JADM 1440·DATA·200004040000100004040000111110
     0000040004
JANL 1450·DATA·200004001110101110040000000000
     0040000004
JAKL 1460·DATA·200004040000000004040000000000
     0000000003
JAHL 1470·DATA·200000000400100400000000000000
     0400000002
JAIM 1480·DATA·200011111111111111111000040004
     0000040002
JACL 1490·DATA·200000000000000000006000000000
     0000000002
JAMK 1500·DATA·200000000000000000000000000000
     0400040002
JAJM 1510·DATA·201111111111111111111111111111
     1111111102
JALK 1520·DATA·200000100000100000100000100000
     1000000002
JAFL 1530·DATA·201110001010001010001010001010
     0011100002
JALL 1540·DATA·200001110001110001110001110001
     1100000042
JABL 1550·DATA·204000000000000000000000000000
     0000400002
KAOB 1560·DATA·333333333333333333333333333333
     3333333333
DAAK 1570·'·Level··4
KABC 1580·DATA·333333333333333332444233333333
     3333333333
JALL 1590·DATA·211111100000000000000000000000
     0011111112
JAML 1600·DATA·211110000011111001111100111110
     0000011112
JALL 1610·DATA·211100000011111001111100111110
     0000001112
JAPK 1620·DATA·211000000011000000000000000110
     0000000112
JAKL 1630·DATA·210000000011011111101111110110
     0000000012
JAHL 1640·DATA·210000000011011110000011110110
     0000000012
JAHL 1650·DATA·210000000000011100010041110000
     0000000012
JACL 1660·DATA·200000000000011000111000110000
     0000000002
JAGP 1670·DATA·203333333333301000115110001033
     3333333302
JALN 1680·DATA·202111111111201001155511001021
     1111111202
JAKO 1690·DATA·202111111111201411555551101021
     1111111202
JAKP 1700·DATA·203333333333301001155511001033
     3333333302
JACL 1710·DATA·200000000000001000115110001000
     0000000002
JADL 1720·DATA·200000000000011000111004110000
     0000000002
JAAL 1730·DATA·200000000000011100010001110000
     0000000002
JAML 1740·DATA·210000000011011114000011110110
     0000000012
JANL 1750·DATA·210000000011011111101111110110
     0000000012
JACL 1760·DATA·210000000011000000000000000110
     0000000012
JAPL 1770·DATA·211000000011111001111000111110
     0000000112
JAAM 1780·DATA·211000000011111001111000111110
     0000000112
JAFL 1790·DATA·211100000000000000000000000000
     0000001112
JABL 1800·DATA·211111000000000000000000000000
     0000111112
JAOL 1810·DATA·211111111000000000000600000000
     0111111112
KAOB 1820·DATA·333333333333333332444233333333
     3333333333

IAHP 10·'·Astroblast·(c)·1993·by·Xen
KAMC 20·'·This·program·is·PUBLIC·DOMAIN
HAFL 30·'·Give·it·to·ya·mates,
HAKP 40·'·Don't·change·my·code,
NAFE 50·'·Don't·try·to·rip·it·off·as·your·own
     !
FAHH 60·'·Don't·sell·it!
IADL 70·'·Send·me·a·tenner!·(Joke!)
OAJN 80·MODE·1:INK·1,26:INK·0,0:BORDER·0:PEN·
     1:PRINT·CHR$(23);CHR$(1)
OEOM 90·DATA·"Asterblast","·","Copyright·1993
     ·by·XEN","The·Quargian·Splatish·Warriors
     ·have","been·waging·war·against·the·plan
     et","of·Grax·for·many·years·and·it·is","
     your·job·as·chief·gunner·to·protect","th
     e·dome·shield·which·has·been·made"
FFKJ 100·DATA·"above·the·planets·surface.·You
     ·must·aim","the·cursor,so·that·the·aster
     oid·is","within·your·sights·and·(I·quote
     )·'fire","in·a·brash,·adrenaline·fuelled
     ·frenzy'","until,·it·is·obliterated!·It'
     s·as","simple·as·that!","But,·how·long·c
     an·you·last?"
KCIN 110·DATA·"·","Controls·are:-","The·CURSO
     R·keys·with·COPY·TO·fire","OR","joystick
     ·in·port·0","·","Happy'Asterbalsting'","
     ·","Press·any·key!","999"
CADA 120·y=415
OACB 130·READ·a$:IF·a$="999"THEN·160·ELSE·y=y
     -15:IF·a$="·"THEN·130
OAJN 140·x=320-(8*LEN(a$)):TAG:PLOT-10,-10,1:
     MOVE·x+2,y-2:PRINT·a$;
LAIB 150·PLOT-10,-10,3:MOVE·x,y:PRINT·a$;:GOT
     O·130
DAGA 160·CALL·&BB18
PAHA 170·MODE·1:INK·1,26:INK·0,0:BORDER·0:PEN
     ·0:PRINT·CHR$(23);CHR$(0)
KANP 180·DEFINT·a-z:SYMBOL·255,195,129,0,0,0,
     0,129,195
JAOK 190·DEG:MOVE·-10,-10:FOR·A=-60·TO·60·STE
     P·4
KABK 200·DRAW·(SIN(A)*600)+320,(COS(A)*600)-4
     80,2:NEXT
MAJE 210·IF·PEEK(6)=128·THEN·GOTO·750·ELSE·MO
     VE·0,0:FILL·2
NBGA 220·SHIELDS=100:LASER=100:lv=lv+1:x=320:
     y=200:TAG:PLOT-10,-10,1:MOVE·x,y:PRINT·C
     HR$(255);:TAGOFF:IF·LV=1·THEN·LV=2
MABP 230·DIM·NEWX(LV),NEWY(LV),DIR(LV),OLDX(L
     V),OLDY(LV)
MBGH 240·FOR·A=1·TO·LV:GOSUB·550:MOVE·newx(a)
     ,newy(a):DRAW·oldx(a),oldy(a),3:PLOT·new
     x(a),newy(a),2:NEXT
GACN 250·FOR·A=0·TO·LASER-1·STEP·2
GALJ 260·MOVE·A+96,0:DRAW·A+96,16,3
NAEH 270·MOVE·527-A,0:DRAW·527-A,16:NEXT:PRIN
     T·CHR$(23);CHR$(1)
CBBN 280·PAPER·2:LOCATE·1,25:PRINT·"Laser:":L
     OCATE·34,25:PRINT·":Shield";:TAG
KAMP 290·FOR·a=1·TO·lv:MOVE·newx(a),newy(a)
OALG 300·DRAW·oldx(a),oldy(a),3:PLOT·newx(a),
     newy(a),2
GAAF 310·IF·sf=1·THEN·GOSUB·610
HAGP 320·newx(a)=newx(a)+dir(a)
GACE 330·newy(a)=newy(a)-8
HACO 340·oldx(a)=oldx(a)+dir(a)
GAOC 350·oldy(a)=oldy(a)-8
MAGC 360·IF·TEST(newx(a),newy(a))=2·THEN·GOSU
     B·640
PAFC 370·IF·newx(a)>639·THEN·oldx(a)=oldx(a)-
     639:newx(a)=0
PACC 380·IF·newx(a)<0·THEN·newx(a)=639:oldx(a
     )=oldx(a)+639
HAIC 390·MOVE·newx(a),newy(a)
OAMG 400·PLOT·newx(a),newy(a),2:DRAW·oldx(a),
     oldy(a),3
HAJL 410·NEXT·a:sf=0:zx=x:zy=y
JADC 420·IF·INKEY(0)>-1·THEN·zy=y+12:mf=1
JAIC 430·IF·INKEY(2)>-1·THEN·zy=y-12:mf=1
JANC 440·IF·INKEY(8)>-1·THEN·zx=x-12:mf=1
JAFC 450·IF·INKEY(1)>-1·THEN·zx=x+12:mf=1
CCHD 460·IF·INKEY(9)>-1·AND·laser>1·THEN·sf=1
     :MOVE·200,0:DRAW·x+8,y-8,3:MOVE·440,0:DR
     AW·x+8,y-8:DRAW·440,0,3:MOVE·200,0:DRAW·
     x+8,y-8,3:GOSUB·660
BBAK 470·IF·mf=1·THEN·PLOT·-10,-10,1:MOVE·x,y
     :PRINT·CHR$(255);:y=zy:x=zx
EADK 480·IF·x<0·THEN·x=0
FAKI 490·IF·x>639·THEN·x=639
FAGG 500·IF·y>300·THEN·y=300
FANG 510·IF·y<160·THEN·y=160
MDDB 520·IF·laser<100·THEN·ticker=ticker+1:IF
     ·ticker=20·THEN·laser=laser+2:ticker=0:T
     AGOFF:LOCATE·1,1:PRINT·CHR$(23);CHR$(0):
     FOR·b=laser-6·TO·laser-2:MOVE·96+b,-2:DR
     AW·96+b,16,3:NEXT·b:MOVE-10,-10:PRINT·CH
     R$(23);CHR$(1):TAG
PADF 530·IF·mf=1·THEN·PLOT·-10,-10,1:MOVE·x,y
     :PRINT·CHR$(255);:mf=0
CANK 540·GOTO·290
FAPK 550·NEWX(A)=INT(RND*640)
IAFH 560·NEWY(A)=400:DIR(A)=(INT(RND*3)-1)
FADF 570·IF·DIR(A)=0·THEN·560
EAIL 580·DIR(A)=DIR(A)*(-4)
MALF 590·OLDX(a)=NEWX(a)-(DIR(a)*10):OLDY(a)=
     NEWY(a)+80
CAGJ 600·RETURN
PBPB 610·IF·x<newx(a)AND·newx(a)<x+16·AND·y>n
     ewy(a)AND·newy(a)>y-16·THEN·hcount=hcoun
     t+1:sc=sc+1·ELSE·RETURN
MAPA 620·IF·hcount<lv*5·THEN·hcount=0:GOTO·55
     0
KAHP 630·ERASE·NEWX,NEWY,DIR,OLDX,OLDY:GOTO·1
     70
LCIM 640·TAGOFF:LOCATE·1,1:shields=shields-6:
     PRINT·CHR$(23);CHR$(0):MOVE·430+shields,
     -2:FOR·b=0·TO-6·STEP-1:DRAWR·0,18,2:MOVE
     R-1,-18:NEXT·b:MOVE-10,-10:PRINT·CHR$(23
     );CHR$(1)
LABE 650·IF·shields<1·THEN·670·ELSE·TAG:GOTO·
     550
OCJM 660·TAGOFF:LOCATE·1,1:ol=laser:laser=las
     er-lv:PRINT·CHR$(23);CHR$(0):FOR·b=ol·TO
     ·laser·STEP-1:MOVE·96+b,-2:DRAW·96+b,18,
     2:NEXT·b:MOVE-10,-10:PRINT·CHR$(23);CHR$
     (1):TAG:RETURN
DANL 670·MODE·1:y=415
IFHD 680·DATA·"Oh·well,·you·done·your·duty·bu
     t·not","well·enough.·By·the·way,·in·the·
     post·you","will·get·a·court·summons·wher
     e·you·will","have·to·explain·how·the·who
     le","population·of·the·planet·died.","I·
     expect·you·to·make·a·full·written","repo
     rt·by·tomorrow.
CBNL 690·DATA·"Press·any·key·to·play·again!",
     "·","You·scored","·","999"
HAJK 700·y=399:PRINT·CHR$(23);CHR$(1);
BBNP 710·READ·a$:IF·a$="999"THEN·a$=STR$(sc):
     ef=1·ELSE·y=y-16:IF·a$="·"THEN·710
OANN 720·x=320-(8*LEN(a$)):TAG:PLOT-10,-10,1:
     MOVE·x+2,y-2:PRINT·a$;
NANB 730·PLOT-10,-10,3:MOVE·x,y:PRINT·a$;:IF·
     ef=0·THEN·710
BBNG 740·FOR·a=0·TO·1000:NEXT·a:CALL·&BB18:TA
     GOFF:PRINT·CHR$(23);CHR$(0);:RUN
OAFB 750·y=20:FOR·x=0·TO·639·STEP·2:FOR·zy=y-
     60·TO·y+6·STEP·2
LAKH 760·t=TEST(x,zy):IF·t=2·THEN·y=zy:zy=420
MAEF 770·NEXT·zy:MOVE·x,2:DRAW·x,y:NEXT·x:GOT
     O·220
```

Venture Forth

They're back, and they're angry (or something). Tim Norris and Simon Forrester bring you part two of their writing adventures series.

Ah, there you are. And here we are. We're all here. That's great. If you missed last month's thrilling instalment you've only got a little catching up to do. We're writing an adventure game from scratch and last month we looked at plots and settings. So, if you weren't utterly baffled by the program, you should be ready to start thinking about moving on to the next bit.

Tell me what you see

We've got our setting sorted out and we've had something of a think about the map. Once you've roughed out the map to your satisfaction, you've got to start work on the room descriptions. What do these locations look like? What's there? What can you see?

The descriptions can be as long or as short as your program will allow, but they must help the player to get some sort of feeling for the game. As a rule, shorter is better – it's really annoying to have to wade through heaps of verbose description just to find out that it's an empty room with a painting on the wall.

Some programs (though not ours) have the room description as a separate thing from the bit of the program that tells you where you are (you can tell I'm technically-minded, can't you?) What this means is that you can tell the player where they are - 'Bedroom' – and then give them a description of it – 'It's an utterly disgusting tip of a place. Dirty coffee mugs everywhere, bits of computer and motorbike all over the floor. It's an outrage. You can leave by going north, and maybe you should.' The program gives you the room description the first time you go into the room and only tells you agin if you ask it to. We're not going to do this because our adventure is so short. I'm just going to tack 'You're in your bedroom.' onto the front of the description and we'll have to read it every time we go in there.

I object

Don't, whatever you do, include things in the descriptions that are to be used in the game. F'rinstance, we're going to need to find all the washing in the house and take it to the launderette. If, when we describe the bedroom, we mention that there's a pile of dirty clothes in the corner we're going to be a bit stuck. What happens when we've picked them up? Every time we go back to the bedroom the game will tell us there are some clothes there, even though we know we're carrying them. So things for the game are 'objects', the program deals with them differently and we'll talk about them later.

Something we've glossed over a bit is the fact that we're calling everything a 'room'. It's a kind of convention, really, and in our case stems from the fact that I can't be bothered to type 'location' over and over again. Somthing else that can't be overlooked is that everywhere your characters go has to be a location. If, for instance, it's possible to sit down at a desk and look at, say, a computer screen, it's easiest to have 'sitting at the desk' as a seperate room for the purposes of programming the game. In our game you have to travel by bus to your friend's house, so 'on the bus' has to be a room with its own description.

You can't beat the system

So, just go systematically through your map, writing a brief description of each location. Try, if you can, to be consistent with your style as you do it. I got a bit stumped when I was writing the descriptions for the laundry game because I wrote them over a few days. I found that the mood was completely different from one end of the map to the other. If it's a light-hearted game, try to adopt the same light-hearted tone throughout. Similarly if it's a dark, brooding,

Those rooms

1. You are in the launderette. You are surrounded by split plastic seats and unhappy people. The room smells of washing powder and boredom. There are washing machines by the wall and doors to the south and east.

2. You are in the street. Litter blows along the road. There is a bus stop. The shelter looks a bit on the dodgy side but it looks like it might rain. The door to the launderette is to the west.

3. You are on the bus. I hate buses. How do they make them smell so disgusting? At least you can look out of the window. Or you could if it wasn't steamed up. I hate buses. Mercifully, the journey doesn't last long.

4. You are in the street outside your friend's house. There's a blue door to the east and a bus stop to the west.

5. You are in another bit of grotty suburban street. You can go east into a shop, or north into a launderette.

6. It's a washing powder shop. Despite there being over 250 different brands, they're all made by one of only two manufacturers. How bizarre. There's a nice looking person behind the counter. The only exit is west.

7. You're in your kitchen. Don't you ever do any washing up? This place is a disgrace. There's a hook by the door which is to the south.

8. You are in your bathroom. I hope your vaccinations are up to date. Domestos is NOT a Greek island and splashing it about a bit could save your life. The door is to the south.

9. More grotty old street. The sooner this whole place gets demolished, the better. You can go north, south, or east and you should do one of them really soon.

10. Out in the street. You close your front door behind you. Smell that suburban air. Foul, isn't it? You can go west or east (back to the house).

11. Your front hall looks a bit tidier than the rest of the house. You can go upstairs (east), north, south, or west. Blimey, what a choice.

12. The landing is a bit of a state, too. That skateboard looks a bit dangerous there at the top of the stairs. You can go north, south, or down the stairs (west).

13. Lawks a lordy, it's some more street. But wait. What's this? There's a shop to the east. Or you can go north if you want.

14. Well I'll be horn swoggled! It's a laundry bag shop, dedicated to the sale of jolly helpful laundry bags. What a good thing you stumbled upon it. There's a nice looking woman behind the counter. Or you can leave by going west.

15. Living rooms are funny old things, aren't they? This is yours and, like the rest of your house, it could do with some tidying up. The exit is to the north.

16. You're in your bedroom. It's an utterly disgusting tip of a place. Dirty coffee mugs everywhere, bits of computer and motorbike all over the floor. It's an outrage. You can leave by going north, and maybe you should.

See Map A →

Gothic piece, suddenly wibbling on about how dirty the curtains are and wouldn't this room look better with a nice clown mobile hanging from the lights is going to be something of a mood-killer.

A minor hassle I had with our descriptions was that the map is pretty much upside down. In plot terms you start in the bedroom (bottom right) and work your way clockwise around the map. But the room numbers run from the top-left. Bear in mind that you're leading the player through the game and try to write the room descriptions in the order the player will probably encounter them. The first pice of street I came to when I started to write was outside the launderette, but the player will first enter the street outside his/her house. So I wrote an exciting description of the street, it being my first, and then suddenly realized that my player would have been wandering round the streets for ages and would already have a pretty good idea what the streets looked like.

Anyway, enough of my yacking, let's get on with it. The room descriptions for The Great Laundry Adventure are in the program on the covertape and Simon will tell you all about it.

The techie bit

Cheers Tim. Right. Though room descriptions are important from the artistic point of view, they don't pose much of a problem on the programming front. The bit we're going to be tackling this month is the first part of the actual adventure program (cor – Ed). The part we'll be concentrating on this month is the parser. This is the bit of the program that takes the player's input, and attempts to work out what it means. Our parser is going to serve two main functions:

- Separate the input into individual words
- Act on those words

To speed things along a bit, and so you can see the whole thing in action, we're going to add descriptions and directional controls as well. So by the end of this episode, you should be able to wander around your little world. You can find the actual program on the first side of this month's covertape, straight after the database, so load it up, and let's go through it bit by bit

The program

Lines 10 to 80 – Simple beginnings

These are the very simple first lines of the program, that set up inks, modes, etc, and display the opening piece of text. Line 80 just goes to the subroutine at line 300, so read on to find out what that does.

Lines 90 to 290 – The parser

This is the main bit, the parser. Line 100 calls the routine at 440 which we'll take a look at later (suffice to say for now that it just prints the room description).

Lines 110 to 140 merely take the input in i$, and turn it into upper case.

Lines 150 to 220 separate the input into the separate words, which are stored in the dimensioned w$ variable. The total number of words appears in the w variable. The routine works by going through the input character by character using MID$, and attaching the character found onto the end of the current word string. Every time it encounters a space, it starts on a new word string.

It would have been wise, on reflection, to enter a little thing removing any trailing spaces from the front of the line, but bullet proofing a program is impractical at this stage.

Lines 230 to 270 are merely IF statements, that jump off to the various command routines when they detect the word they want.

Lines 300 to 430 – Setting up variables

This routines (referred to earlier) simply sets up all the variables used elsewhere in the program. As well as setting up w$ (used by the parser), it does one other major task – reads off the room access codes. The way it works is very similar to the parser, in that it reads the number from the data statement, converts it into binary (to look at), and works through the string. If you remember from last time, the binary number could be quartered (literally), and each set of two bits indicate access in any particular direction. It's on one line purely to shorten the program, but you might like to try breaking it up a bit, for ease of understanding.

You can now feel good, because that was probably the only remotely mathematical thing we're likely to do in this program from now on. If you grasped it OK, then sit back, feel pleased, and relax.

Lines 440 to 660 – Room descriptions

This is simply the routine to display room descriptions. It simply reads off the rooms until it comes to the one it wants, and prints that. This does, in effect, mean that the printing slows down when you're in a room with a higher location number, but it's not really a noticeable change in speed, so don't worry.

The descriptions are all stored in the DATA statements at the end, by the way.

Lines 670 to 860 – On the move...

We discussed all this at great depth last month, so I'm not going to go into it in major depth again, suffice to say these are the routines to move you in the various directions,. All we've really added here is a little trap device to make sure the player can't walk through walls.

Next month we'll bung some objects in it. ●

A bit of tidying up

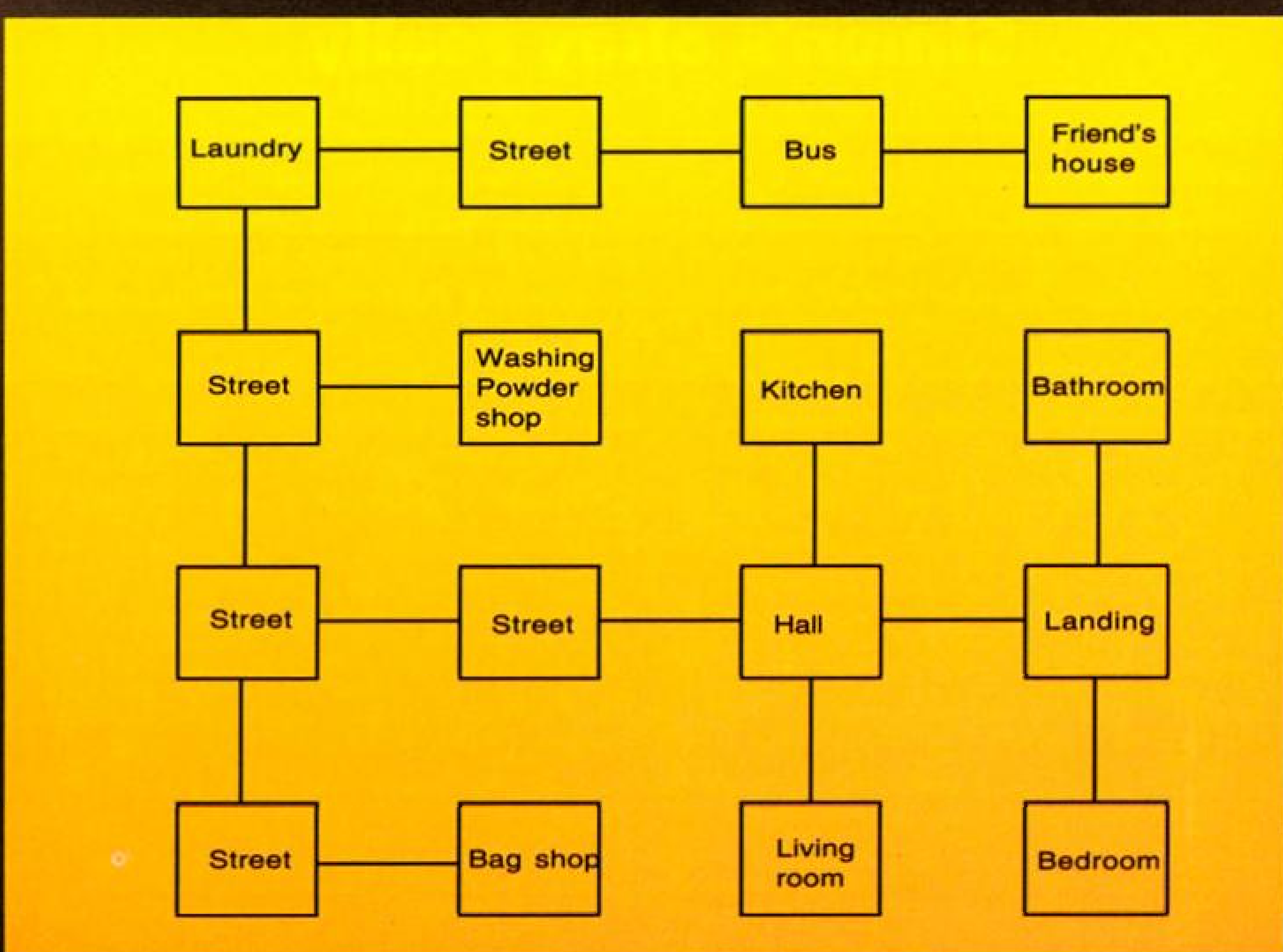
It's getting to the point where the program is beginning to take shape. Already we've designed the map and worked out what all our rooms look like. We've started on the parser and pretty soon we'll be putting in our objects and puzzles.

What we need to think about now is a little window dressing. We need to think about how the thing will look on the screen and what our players will see when they open the game for the first time.

Clearly some sort of introduction is in order.

```
10 BORDER 0
20 INK 0,0
30 INK 1,26
40 MODE 1
50 PRINT "  You wake with a start. There's a
bright light shining in your eyes. It  feels like
the sun. Oh no, it IS the   sun. It's already
late in the morning  and you've got to get all
the laundry  done and get round to your friend's"
60 PRINT "house for lunch. You'd better get
cracking, really..."
70 PRINT "  You get dressed quickly and wonder
what to do in that hapless kind of manner you
have."
```

Obviously you'll think a lot more carefully about what you want to say to your players than we have, but you get the gist. Don't you? Oh, go on, say you do. Thanks.



Reaction

Send your letters to: Reaction, Amstrad Action, 30 Monmouth Street, Bath BA1 2BW

What the...?

I am very distressed. Could you explain in full what *PowerPage* does, please? Also what the wotsits is clip art? Do PD libraries supply software usually on 3" discs or 3.5" disks? Finally, what it is that it is is a firmware manual?

I'd be chunky grateful if you replied because I'm sure a lot of other CPC beginners want to know some of this.

Thanks tons

R S Plum
Wallington

Well, R S, it's like this. PowerPage *is a desktop publishing program. In the 1980s, people suddenly realised that they could use computers to lay out magazines and newspapers for them. A desktop publisher is the program that allows you to do this. It lets you put your text and graphics on the page in a sort of 'designed' way rather than the sort of 'printed out in a huge lump' way that a word processor would. I think it might be about time we did a DTP round-up.*

Clip Art is the name given to the little icons and doodles and stuff that people sell for you to include in your DTP pages. There's a lot of it about and it comes in all shapes, sizes and flavours. You might need a picture of a footballer for your club newsletter, for instance. Instead of drawing one for yourself, someone's probably already done one for you and you can buy it as clip art. It's usually sold on discs and comes grouped by subject.

The firmware manual is described in full in our 'Simply The Best' feature.

Crap Amiga games

1. Ever noticed how *T2*, *Final Fight* and the new *Nigel Mansell* are supposed to be really crap on the Amiga, but get high marks in the Amstrad reviews?
2. I'm waiting eagerly for *SF2*, but if they don't include a paddle option or at least two keyboard attack buttons, something nasty involving blunt scissors might be in someone's horoscope.
3. How about nagging some software houses to make *Alien*^{3} (also with paddle option)? Saliva drips from my blood-stained lips at the thought of such a game.
4. One question: I've been given three different versions of what WIMP stands for. What is it really?
5. Lastly, please keep us faithful readers up to date on the competition winners.

Paul Branney
Carnoustie

1. Yes, we've noticed that too. P'raps Amiga journos are just a miserable bunch of old stinkers. P'raps programmers make up for the lack of decent graphics and sound by making decent games instead.
2. The usual response from US Gold is 'in two to three weeks' but they say that every two to three weeks. It's actually the programmers fault, and you know what they're like.
3. Er, okay. Make an Amstrad version of Alien^3 *you stinky softies, you.*
4. WIMP stands for Windows, Icons, Menus, Pointers. It was coined by Xerox who created the original WIMP interface. Everyone uses them now. Simon even wrote one for the CPC.

It might stand for something else. How about Watching Italians Make Pasta? Where Is My Pen?
5. Ooh, yes. Good point. We'll do that soon. We forgot.

You're crap

You're crap. ***AA***'s nothing like it was in the old days. The magazine's too short (60 pages? that's rubbish). You come from a crap Amiga magazine (I don't care what you say, Amigas are crap) and you don't know anything about computers, especially not the CPC. You're rude to everyone and you aren't even funny. The new logo's revolting and... *(Snip. – Ed)*

Ed Law
Bristol

Thanks, Ed. Nothing's like it was in the old days



David got away quite lightly really... You should have seen what Simon does to the foolish people who criticize his work.

Simon's okay really

I was reading the latest issue of AA and noticed that a lot of people were unhappy with the covertape. I must say the first tape was a bit of a let down. So, fine, it had a word processor worth about twenty quid but what was the idea behind the chess game? I understand that many people may not have a word processor so it was right to put one on the tape, but surely it would have been a better move to put a decent game on the tape for all those that HAVE got one. Anyway, you seem to have made up for that by putting an excellent utility on the next tape (*BooTracker*) and two good games.

Another major gripe is the size of the magazine. I thought it was getting bigger after I saw an extra eight pages in AA91 but then it went back down to a measly 60 again. I would have thought that with the competition gone you would be able to attract more advertisers.

The 8-bits certainly seem to be in decline now, especially as your average readership has just fallen to 27,000. However, I'd just like to make a few suggestions. I think the public domain column should be extended to by a couple of pages as most new software seems to be coming that way and I feel that it would be wise to put a few good pieces of PD software on the covertape every month as well.

Otherwise, everything is just fine. Simon Forrester's reviews are well written and the balance of the magazine is just right but I was wondering whether you would consider putting the following bits of software on the tape: a colour dump program and PowerPage 128.

David Crookes
Bury

Thanks, David. We'll ponder the change in the PD column, I think you might be right. Oh, and Simon says thanks.

and we're really sorry. Oh, and get stuffed.

Aussie Fanzine

Great mag! Love it. You are the saviour of the CPC. I was planning to upgrade my 6128 for a PC but then your mag brought me back to my senses. Thanks.

I am constantly reading in your Reaction section about how the CPC market is declining. Well spare a thought for us down Under. I know of only one company left in the country that still sells CPC games and that's why I'm writing to you. Since the games drought is so bad here I'd like to start an Australian fanzine and PD library – I don't think there are any at the moment. I've had a few good ideas for the mag but I won't be starting preparation until I know the prospective audience.

So, would you please print my name and address so that anyone who's interested in the idea could write to me and share their thoughts and opinions.

I look forward to hearing from all you Aussie users.

Brett Tippet
69 Racecourse Road
Heyfield
Victoria
3858
Australia

Sounds fab to us. Let us know how you get on.

ANSI C

I'm a complete beginner where computers are concerned and I should be grateful if you could answer the following questions:

1. My PC-owning brother says I can't program in ANSI C on my 'puny' 6128. Is this true? If not, where can I get the necessary software.
2. I love the freebie copy of *Tasword*. It's great for writing letters etc. *(But this is hand-written. – Ed)* My problem, however, is how to write mathematical symbols (√ or ∫, etc) and powers (10^3, 10^4, etc) and also how do you do the Greek alphabet? *(Like this: $\alpha, \beta, \gamma, \delta$. Just kidding. – Ed)*

I think AA is the greatest and I eagerly await your reply. In the meantime, keep up the good work.

Janet Bailiff
Nottingham

Thanks, Janet, we think you're the greatest too.
1. As for your brother, well he's almost right. You can't get ANSI C but you can get a version of C from HiSoft. Give them a call on 0525 718181.
2. Blimey, I dunno. Mathematical symbols and strategic bits of the Greek alphabet (I'm sorry, I didn't look too closely to see if it was all there) are in the second character set which you access by pressing CONTROL /. If you print stuff out, you can get powers by putting the power bit into 'Superscript' (on the printer options menu). This bungs the type up here like this but you don't see it on the screen.

That covertape again



As a CPC 6128 user, I am going to make a suggestion that I believe will help both me and your mag. Did you notice that the disc tokens we send away to Ablex with our £2 (and no postage) is not good marketing for your mag? There can't be much in it for you at that price and we've had to pay for a tape we can't use. This is what I ask:

There was a large amount of space left on the Tasword disc. People are asking for the type-ins to be available to readers who want it in a more convenient form. I'm sure we will be willing to pay for the type-ins to be included on the disc version of the covertape and we could also be charged postage.

You replied to one letter that type-ins 'should, by their very nature, be typed in'. Not by me, time is money. That was an amateurish and unprofessional way to deal with a paying reader.

A Richards
Bristol



Mr Richards goes on to complain that the answers to letters in the mag are made by smart Alecs on ego trips. He's right. We're sorry. We shan't stop being smart Alecs, but we are sorry about it.

But back to the meat of the matter. We offer the disc thing as a service and we do it at price we do because we love you. We're not, however, a software house and getting the type-ins compiled, duplicated and flogged on to you, the readers, would be more trouble, expense and general aggravation that it would be worth.

Since the dawn of computer mags there have been type-ins and people have been satisfied to type them in. I've spoken to Rod (you remember Rod) and he tells me that he was subjected to a veritable barrage of abuse when he started putting type-ins on the covertape from people who said it was a waste. We can't win.

This is your hobby, Mr Richards, and time isn't, in any sense at all, money. If you don't want to type them in, don't. No one's forcing you.

In the time-honoured tradition of such things, correspondence on this matter is now closed. There shall be no type-ins on the covertapes (until we change our minds again).

Recycled German paper

The Classic Collection is a really great idea. At last I can start having some decent utilities on disc for my 6128. I hope that this is one of the nicer remarks you get about the covertape. *(It is, believe me. – Ed)*

Have any of you lot ever heard of a 5.25" disk drive for the CPC? A friend of mine had a C64 and like any foolish C64 owner he bought the wrong disks. There are 60-odd games on six disks, including some great oldies like *Kung Fu Master, Codename Mat* and even *Tasword* and *Colossus Chess*. If there aren't any 5.25" drives, where could we get the disks duplicated onto 3" discs – have you any idea?

I can't wait for the release of Street Fighter II so I can show all my SNES-owning friends that a CPC is as good (or better) than any Nintendo ever made.

And at last a winner of the GAC compo. I can't wait for next month for one of the best reads of all time – your mag is funnier, clearer and better set out than any PC mag my dad's ever bought.

Gotta go 'cos it's bed time.

Andrew Cranwell
Somewhere in Cambridgeshire
(Sorry, I couldn't understand your 90% re-cycled sticker. – Ed)

You don't make it entirely clear whether your pal's software is for the CPC. If it is, how did (s)he get it onto 5.25" disks in the first place? If it's not, why do you want it? You won't be able to use it. Anyway, assuming you've got all that straight, there was never a CPC-specific 5.25" drive but, like 3.5" drives, you can use any of them – as long as you have the correct interface and other gubbins. So just find yourself a 5.25" drive and then check out any of the advertisers in the mag that sells drives and stuff and tell them what you're trying to do – they should be able to help. There are loads of bureaux that'll transfer disks of all sorts, but I'm still not certain if it would be worth your while – I still think your mate's files are C64 files that'll be no good to you.

I know this is going to make me unpopular, and I don't want to be seen to be raining on your parade or anything, but the CPC isn't a better games machine than the SNES. Sorry. As for SF2, well. It might be good, it might not. We'll just have to wait and see.

Fund for everyone

I have been reading **AA** since issue one *(So you're the one. – Ed)* and have always thought it an enjoyable read, though now it seems to have

Fan Mail Corner

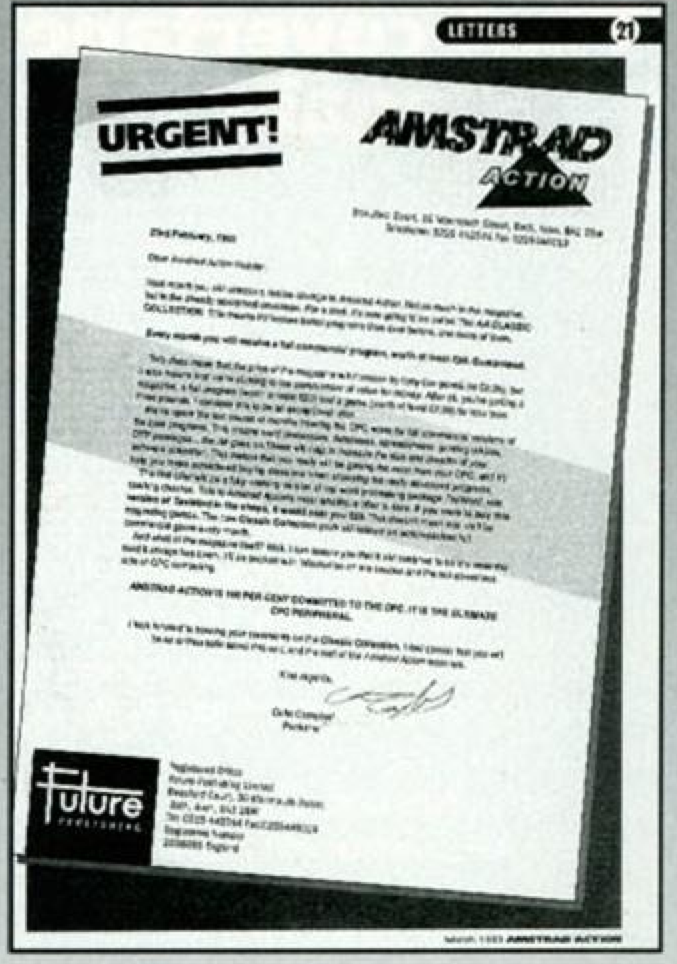
I collected the March issue of AA from the newsagent in Bendigo on 5th May which is a bit later than normal, but not much (it takes quite a while for things to get to the other side of the world).

When I got to page 21 and read Colin's letter, I couldn't believe it – I thought you were doing a great job, but now I'm lost for words.

From 1985 I bought all the magazines that were about the Amstrad, from ACU to CPC Attack, and I always had my eyes open for magazines with cover tapes, even when I had a disc drive. I started with a 664, but after five years, the plastic sheet under the keyboard with the circuit on it that does all the work got a sickness and started to rot away – maybe it was my own fault for smoking while typing.

After getting a second-hand 464 and switching a few chips, I've got a 464 that thinks it's a 664, but that's all. The disc drive isn't going yet so I'm still looking for covertapes. And I've been able to take it easy ever since AA started putting type-ins on the tape, *(Oh dear. – Ed)* which is a good thing when you're the wrong side of 60.

Coming back to the matter at hand, keep up the good work and keep your eyes open for



the back-stabbers.

It's been nice talking to you, even if it was a little one sided.

W Akkermans
Neilborough, Australia

Gosh, W, what can I say? Sorry about the type-ins.

rather a morbid tone. *(Ah, yes, well, you see Morbid Tone is a good friend of mine and we let him write for us from time to time. – Ed)* It's obvious that with all this console mania going on that the 8-bits will eventually falter. But if we want to keep the CPC going strong for a while we should all put in an effort, which goes a bit further than buying **AA** every month. *(Although that helps keep us in work. – Ed)*

What the CPC needs to survive is a constant supply of quality new software, of which there seems to be something of a lack at the moment. How many people want DOSs? Music programs? These are about the only new programs floating around nowadays.

This is because the only new software around (good though it is) comes from enthusiasts and techie bods who do it primarily for love and not money. If only we could attract serious commercial programmers who write programs that will generate the most revenue – games.

I must admit I too don't buy games, DOSs or music programs, but I do wish to support the CPC and encourage new talent to write all sorts of new software for it. As I was pondering what might be done, I hit upon the idea of a readers' fund, which could give awards for top quality programs such as *Zap'T'Balls* or whatever.

I know what you're going to say *(Fishfingers. I bet you didn't expect me to say that. – Ed)* but I would willingly give 10 or 20 pounds if I knew I was helping to create new quality software and I'm sure a lot of other readers would too. The fund could even be used to commission games or whatever from well-known authors.

There're all sorts of ways it might be done, but to discuss them here would be pointless unless **AA** decides it's worthwhile. Ask the readers what they want.

Peter Hale
Lewisham

PS Since Amstrad obviously doesn't care any more, how about giving programming details of the Plus Chips?

It's touching to be told that things aren't worth doing unless we say so, but I'm not entirely certain that's the case. I should have thought WACCI or the UAUG would be in a better position to administer the sort of fund you suggest. We're magazine and computer-types, not fund managers – we wouldn't know where to start.

What do the readers want, then? Does anyone else think it's a good idea? I'm not convinced, but I'd be interested to hear some opinions.

Oh, and 'morbid'? I prefer to think of us as 'realistically-resigned-to-the-way-of-the-world-but-extremely-positive-and-jolly-nevertheless', but then I'm like that.

Clean yer 'eads

I own a CPC 464 and my new games *Golden Axe* and *Terminator 2* don't work. I don't know whether it's my computers fault or not. In Terminator 2 it either says error b or it loads a bit – until the colours start flashing – and then stops.

With *Golden Axe* it just says error b

Could you find out if it's my computer's fault or the tape's fault and what error b means and what to do when it appears.

Alasdai Coll
Caithness

Is your name really Alasdair? I bet it is. Error b is where the computer can't read the data from the tape. Sometimes it's because the tape heads are dirty, sometimes it's something wrong with the tape. So, first clean the heads on the tape player. Switch of the computer. Open the tape lid. Press play. Three lumps appear (from left to right, the erase head, the record/play head and the pinch roller and capstan). Put some methylated spirit on a cotton bud. Clean all three lumps thoroughly. Dry them with a dry cotton bud. Now try to load your games again. If they still don't work, it's probably something wrong with the tapes and you should take them back to where you got them from and get them replaced. ●

Just doing it

I thought I'd put finger to keyboard (464 *Tasword*, of course) and reply to your plea
for involvement in the comments on the future of the CPC.

I first had a 464 and a 6128 back in the early 1980s and I thought they were a step up the ladder from the Speccy and ZX81 (these being my introduction into the world of computing).

A computer with its own monitor (colour at that!) this was something else... I was overjoyed by this wonderful little machine. I must have spent hours upon hours messing about with this contraption until the early hours.

As time went on, I decided to part with my CPC for a quieter life. Some time later I bought an Atari STFM but I found it difficult to get on with so I decided to buy a PC. I must admit I've enjoyed studying and working with the PC1640 but I decided recently to go back to basics so I got hold of a 464 with green monitor and a stack of games for £65! I probably won't bother with the games much (except *Scrabble*) and use the machine for serious work, assembly/disassembly and general machine code study. I'd also like to start writing adventures again, when I get the right software.

I was more than surprised to read the comments in AA on the interest that's still around for the CPC. There's no doubt that it's a potent little machine and I, for one, never used it to its full potential back in the '80s.

I hope your magazine continues to flourish and you get the full support you require for this wonderful little machine.

Keep up the good work, but please remember us mature persons when writing your articles, not too childish, please...

Melvyn Phillips
Bedworth

Thanks, Mel. Childish? Us? We'd love to stay and argue but it's time for our nap.

For Sale

AMSTRAD 6128 colour monitor, 464 keyboard, DD1, Multiface, Insider, Tape Recorder, Mini Office 2, Devpac, Maxam II, books, mags, games, disks, tapes, joysticks, £350 ono. **Contact Sam, 16 Crocker Walk, Moston, Manchester M9 1NG anytime.**

CPC 464+ colour monitor, two joysticks and software, manual, only two months old, (quick sale) only £150.00 ono. **Tel 0375 390623 or write to Clifford White, 103 Seabrooke Rise, Grays, Essex RM17 6DS.**

CPC 464 colour monitor, Multiface 2, (under twelve months old), manual, user demo, 7 AA's and tapes, over £180 worth of software £250 ono. Buyer pays postage. **Tel 0497 847476.**

CPC 464 + 64K, Disk drive (manuals included) CPM22 printer lead, AA's 68-90 £200+ of software £359.99 of hardware. Sell for £350. **Phone Ian 0892 517153 5-9pm bargain!**

AMSTRAD DD1 inc Interface, Disk Box, 24 disks and Mini Office II, Disk £100, DK Tronics 256K expansion £50. **Phone Jochen in Germany 0104922514020. Buyer pays postage.**

AMSTRAD 6128 colour with tape recorder, mouse, 20+ magazines, 60+ tapes, 20+ disks, Mini Office II, Art Studio, both on disk. **Phone Jessica 0707 262689 £300. Any reasonable offers. Hatfield.**

AMSTRAD CPC 6128 sorry to all other sellers out there! £250+ of software and manuals (Soft 968!) and computer (sorry no monitor, modulator supplied) for only £229 bargain. **Phone 0483 282350.**

CPC 464 colour monitor, Quickjoy joystick, manual, demo tape, 50 games including Robocop, Paperboy, £120. **Tel 0935 822835 (Somerset).**

AMSTRAD 464+ for sale, mint condition, just 1 year old, over £150 software, Colour monitor only £250. Also OCP Art Studio £10, AMX Mouse £15. 464+ keyboard only £40. **Tel 0209 218080.**

ROMBO ROMBOX with Protext and Maxam 1 1/2 ROMS £40, AMX mouse and Stop Press DTP package £30. **Phone 0271 24843 after 6pm.**

MANUALS Soft 968 Firmware manual £8, Amstrad Advanced Users Guide £5, The Amstrad CP/M Plus £8, Amstrad Machine Language £3, CP/M 80 Programmers Guide £8. **Phone 0432 270329.**

CPC 6128 (COLOUR) 3.5" drive, Brunword ROM, RS232, magazines, 256K, TV Tuner, Lightpen, Mouse, Lightgun, Books, Games/serious, PD, Stop Press, too much to list. Worth £1,300. Sell £500. **Phone 0793 531636 after 4pm.**

CPC 464 colour 6128 Rom 64K memory expansion two 3" disk drives, Cruiser Joystick, mouse, Stop-Press, tape and disk software manuals, books and more £375 ovno. **Phone 0245 321514 after 6.30pm.**

AMSTRAD 6128 PLUS disk drive with colour monitor. Ten months from new, user instruction manual, disk games worth £100. Quick sell at £150. **Please phone Michael 0443 204529 after 6pm.**

AMSTRAD 464 colour monitor, lots of software (mostly games) plus many Amstrad Action magazines £165 ono. **Phone 0734 834256 evenings/weekends.**

DRIVE AWAY THESE OFFERS! For sale Outrun Europa, Super Monaco GP, Supercars, originals on disk £6 each. Lords of Chaos on tape £3. **Tel 0533 836453.**

AMSTRAD 464 with green screen and MP1 TV modulator, loads of games, Multiface 2, magazines and cover tapes, will sell for £150. **Phone 0980 624545 and ask for Stuart.**

464+ COLOUR MONITOR, 64K Rampack, DK Tronics Lightpen, 2 joypads, cartridges £120 worth of software, 19 magazines, all boxed with manuals, might split, £300 plus P&P. **Tel Dean 0253 770391.**

COLOUR MONITOR, CWTA, ACU, AMTIX magazines, level 9 adventures and others, loads of games on tape, disk, from £1, Speech Synth, Elite, Chuck Yeagers, mono monitor, Sprites Alive, Stop Press. **Tel Wayne 0532 572154.**

AMSTRAD CPC 464 plus with 72 games and black and white monitor. Will swap for Sega Megadrive or £150 ono. **Tel Richard 0646 68922 (Pembroke).**

AMSTRAD 464 green screen, DD1, disk drive, 64K Ram upgrade, MP2 Modulator, joystick 50+ games, plus serious software, Protext, Mini Office 2, Protype, excellent condition £250. **Phone Mike 071 473 4083.**

CPC 464 +64K disk drive, Rombo Protext, Maxam 1.5 Prospell, all on ROM, printer, digital sampler, Amdrum, Midi mouse, interface, loads of software, AA's 20-85 worth £1500+ Sell for £350 ono. **Tel 0749 674604.**

MONO CPC464, DD1-I drive, Multiface II, 64k expansion, 6128 ROM - Chip 6128 or 464 operation. Desktop Publishing (incl Mouse), Mini-Office II, CP/M and CP/M+ systems disks. Loads of games £175 ovno. **Phone Steve 071 241 0662.**

SOFTWARE, twenty+ disk games, several tapes, including Kick Off II, Rambo III, Operation Wolf, ATlast +, Mastercalc, Mini Office II, Xybots, all disks £5.00 each/tapes £2.00. **Phone Wayne 071 430 5615 9am - 4pm.**

ROMS, Maxam 11/2, RODOS, Utopia, Romdos, Romdos +, all with original packing and instructions. Offers welcome. **Phone Wayne 071 430 5615 9am - 4pm.**

COLOUR MONITOR CTM640 £60 or swap for green or TV modulator £50 for modulator £40 for green screen. Wanted Battlefield, Germany, Sorcerlord, Firezone and pen pals any one preferably female from London age 16-25. **Chris Palmer 257 The Hides, Harlow, Essex CM20 3QU.**

AMSTRAD CPC 464 with colour monitor, £300 worth of games, mint condition. Games include Prince of Persia, WWF Wrestlemania, Bart V, Space Mutants, Outrun Europa etc. Bargain all for £320. Including Joystick **0265 832823 (N. Ireland).**

GAMES (50+ some on disk, mainly on cassette) from 50p, books (mainly for children), magazines (70+ editions of 'Computer Express' , also CPC computing £30) DK Tronics speech synthesizer £20, Multiface 2+ £20 (speech includes 2 watt amplifier). **Phone after 4pm (Giles) 0242 524212.**

STAR TREK Fan club 'The Last Outpost' For free copy of 'Enterprise' Newsletter, just send 2nd class stamp to: **'The Last Outpost' (AA), 1 Blackdykes Terrace, Falkland, Fife KY7 7BA.**

GAMES FOR SALE, Original boxed with instructions, tape games for CPC. For a list and prices send **SAE David Platt, 54 Fore Street, Buckfastleigh, South Devon.**

DART scanner and DMP 3160 printer together £110, Stop Press, Mouse, 60 fonts, 600 graphics £75, too much to list here. Both packages for £170. **For more details phone 0296 431509.**

AMSTRAD 6128 keyboard, 33 games, joystick, excellent condition, sell for £700 ono. **Contact Akbar 081 521 8594 after 6.30pm.**

AMSTRAD CPC 6128+ colour monitor, manual, AA mags, Disks, Paddle, cheetah, Bug, Joystick, Two years old. Excellent condition. **Phone 061 428 1172 any day until 9pm. £180.00 the lot, buyer must collect.**

I WILL SELL YOU Spectrum ZX computer games for £1.50 each. Including over 150 games like Commando, Road Runner and Xenon or I'll sell you all of my games for £50. **Tel 663 2045. Mayfield Dalrieth, Midlothian.**

AMSTRAD 464+ and colour monitor, joystick, pad, also 50 games approx. Mostly top selling titles, magazines worth £50 also DTP packages, sell complete. Bargain at £250 ono. **Phone 0933 53365.**

CPC 464, colour monitor, TV Tuner, clock/radio, 6128 chip, 3 + 3.5" drives, 64K memory expansion, Mutiface 2, Rom Box with Romdos XL 8 MS806 (6 months old) joystick, joypad, games and serious software £400 ono. will split. **Tel Bournemouth 0202 895429.**

AMSTRAD CPC 6128 keyboard, monitor, games, manuals, tape recorder for 464. Games £200 ono. Also available: Desk TV modulator, alarm clock, non-separable £100 ono. Cheat Mode 2 and back issues of AA. **Please phone Ben 0407 762764.**

PROSPELL DICTIONARIES contains over 57,000 words, tested against 2 megabytes of text. Send £5, plus 2 3" or 3.5" inch disks. **Make payable to:- B. Snell, 8 St Augustine Road, Southsea, Portsmouth PO4 9AD.**

AMSTRAD CPC 464 keyboard, colour monitor, games, manuals, Multiface 2 £150. **Ben 0407 762764.**

AMSTRAD 464 plus colour monitor, keyboard, joypad, many games, Amstrad Action magazines in excellent condition £230 ono. **Telephone 0266 44069 after 4pm.**

UNWANTED GAMES plus AA cover tapes and Amstrad Starter Pack. Tapes (23 games in total), bought with second hand 6128. Turbo Outrun, Sold a Million II, Skate or Die etc £15. **James 081 449 6377.**

CPC 6128 and mono monitor, Multiface 2+, tape deck, leads, manuals, both tape and disk games plus many magazines, £150 ono. **Phone Matt on 0222 499087 after 6pm.**

AA 4 to 79 and 82, most tapes, very good condition, offers for all or part of the above. **Phone Matt on 0222 499087 after 6pm.**

AMSTRAD CPC disk games £3 each, 9 for £20. Tape games from 50p to £2. 16 for £20. 75 issues of Amstrad Action, some bound £10. **Hampshire 0730 893777.**

AMIGA A500 512K RAM, mouse, joystick, software and disk box. All leads and TV modulator, included in bargain at only £300. **Tel 0706 842126.**

AMSTRAD CPC 464 colour monitor and TV modulator, over 40 games and magazines plus joystick. £120 ono. **Tel 0252 512064.**

AMSTRAD CPC 464 with green screen monitor, joystick, £450 worth of software all originals, many magazines including cover tapes £150 ono. **Contact 0642 597695 any time after 6pm ask for Peter.**

AMSTRAD ACTION MAGAZINES December 1987 until April 92 almost new. £1.30 each not sold separately. Software serious/games, tapes/disks. Cost Master. X-press eg, Protext, Parroty Plus, Fleet Street Editor. Full list. **Tel 041 778 6945.**

SEGA MASTER SYSTEM II for sale with Alex the Kid on Memory with control pad, and one Python joystick. All for £45. **Call Alan on 0236 432908 after 4pm if possible.**

AMSTRAD SUPER SALE! including hardware, software, magazines, games and two Amstrad computers. For a complete list send **SAE to: 'Bradda' Crowborough Road, Georgeham, North Devon EX33 1JZ.**

CPC 6128 bargain colour monitor, disk drive, joystick and leads all in very good condition. All manuals boxed, tape and disk software £175. **Phone 0708 741154 (Romford).**

MINI OFFICE II two versions, both on cassette for CPC 464, 644 or 6128. cost £16 each, never used, £5 each. **Phone Paul 0742 373973 (Sheffield).**

AMSTRAD CPC 6128 with green screen monitor, joystick, various extension leads, Mini Office II, Amsoft Pascal, Dr Graph, Turbo Basic, 30 disks with assorted utilities and tapes £195. **Tel Colin 0635 872154.**

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ProPrint

Campursoft ■ 041 554 4735

We set that nice young Simon Forrester to work checking out this new Protext enhancer from Campursoft.

So you've got *Protext*, and though it's a really nice little word processor and all, its output is still very much limited to the capabilities of your printer (around about four fonts, all of which look identical, and an ugly draft mode). This is where Campursoft saw the gap, and the need for a package that can allow *Protext* to be as proficient at printing as it is at word processing. Enter *ProPrint*. *ProPrint* is a package that intercepts any output directed toward the printer, and turns it from pages of boring straight text, into pages of lovely graphical fonts, at the touch of a button. The one thing to bear in mind here though is that you do need a copy of *Protext* before you can use *ProPrint* (obviously), so don't rush into buying this until you're sure you have the kit to run it.

So how does it all work? Well, *ProPrint* comes in two main parts – the Protext patch, and the character designer. You don't have to design all your own fonts though, as the B side of the disc is stuffed to overflowing with loads and loads of different lettering styles.

The *Protext* patch part is the program that intercepts printer output, and actually makes use of the codes you insert, calling up different styles, graphics, etc, from the in-text control codes you use in *Protext* anyway.

One of the first things to look at on a package as technical as this is the manual, as there is virtually no on-screen help within the *Protext* text editor (except for the usual stuff), so a manual that tells you exactly what's going on, and when it should be going on is pretty much essential. Well, I'm pleased to say that the manual is very clearly written, with a lot of extra help, good ideas, and nice examples (which can also be found on the disc). As a nice addition, it also has a few little troubleshooting sections to help you out of tight spots.

The character designer (the part of the package you'll be using to create new styles of letters) is, to be frank, good. Gives a nice display of every character in that set, along with a normal and condensed image of the character you're working on at the time. Quite obviously, the designer is in black and white (your print out is as well), giving a nice high resolution to the lettering you're working on. Controlling the pointer is easy with cursor keys to move it, and the space bar to toggle a pixel. You may be misled, however – the resolution of the character you see on screen is not going to be the resolution you achieve on paper if you're using a 9-pin printer as opposed to a 24-pin. When you reduce the number of dots per inch, etc, resolution obviously goes down. Fear not though – though 24-pin printers produce a wonderful print-out, 9-pin printers still produce a quality of text that looks easily as good as it needs to.

Great – so you've got loads of new printer fonts. Fab. What use it that? Well, the printer fonts aren't just your average run-of-the-CPC stuff. They've got a much clearer and better representation on italics, subscript and superscript, as well as being of a slightly more artistic nature than the standard Epson stuff.

ProPrint also prints graphics. Yup, there's a nice variety of box edgings and the like to choose from, making your work look a hundred times better than the standard DMP printout stuff.

So how could a package like this help you? Well, think about it – if you're producing a fanzine, a news sheet, a notice, or the such, the ability to display several high quality fonts will allow you to create some really eye catching designs, giving your work a much more pleasing look.

Think of essays – schoolwork and the like. Instead of producing a slightly naff lump of printer font, you could switch between several styles for highlighting salient points, creating lists, etc.

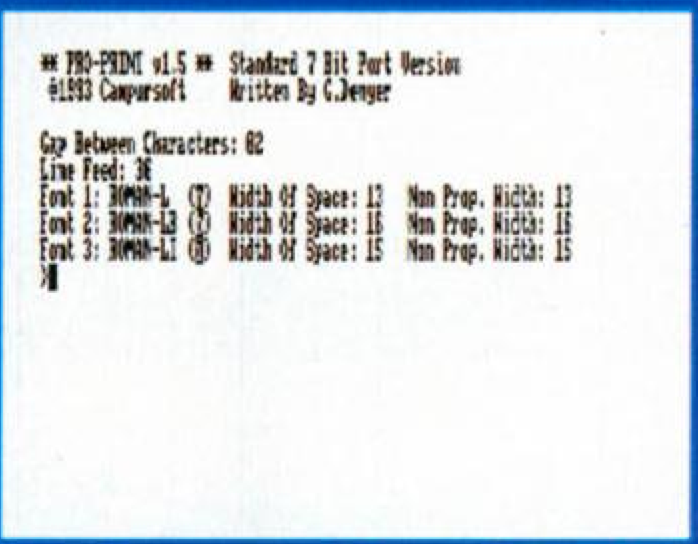
To sum up, from what we've seen of Campursoft's *ProPrint*, it looks like it should be a very nice package for two reasons. Firstly, it's serving a purpose that many people could find very useful in conjunction with *Protext* and secondly, it's a nicely written, easy to use, and incredibly powerful piece of work. ●



This is the standard text editor bit. It looks really familiar, so nothing there to scare you.



If you squint really hard you see the ProPrint commands at the bottom there.



And, of course, there's always a bunch of information about to keep you well informed.

Next Month

Watch out next month for the final word on *ProPrint*, and a review of what could be its main rival, Sentinel Software's *Pro-Ext*.

For Sale

CPC6128 COLOUR, Multiface 2, ROM board, Rodos ROM 800K second 3.5" drive. Kempston Interface and mouse. Advanced Art Studio, Maxam II, Brunword 6128, Pawn, Academy, Time and Magik Trilogy, Firmware Guide 6128. **Phone Simon 0734 341517.**

CPC6128 COLOUR MONITOR, joystick, manual, 100+ games, TV Modulator, some AA's with cover tapes, excellent bargain, well looked after. Offers in the region of £300. **Telephone Ryan on 0296 714479**

AMSTRAD CPC 6128 colour monitor, joystick, Mini Office II, C Compiler, Word processing software, games, perfect working order. £210 ono. **Phone Rod on Bicester 0869 246462.**

BOOKS FOR SALE inc.The Amstrad CP/M Plus, Amstrad Advanced User Guide, The Amstrad Disk Companion. **Phone for list 071 822 3727 ask for Roger.**

CPC 464 UPGRADED TO 6128. Disk drive, Speech ROM, Light Pen, Multiface 2, Joystick, 100+ disks and cassettes, printer, magazines £290 ono. **Phone 081 569 1338 and ask for Paul (evenings).**

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6128 WITH COLOUR MONITOR 2160 printer digitiser, mouse, Stop Press, AMX Zircon cassette player, OCP Advanced Art C Compiler, Mini Office, Pandora Magazines, Games £500. **Phone 0525 222552.**

Advanced Art Studio (on tape) £9, Mini Office II (tape) £4, Dot Matrix printer 2160 £50. **Phone 0480 860845.** Also some games - phone for details.

DISKS, BATTLE OF THE BULGE, Back to the Future, Edd The Duck, Boxing, Chess, Sorcery, Fun School 2, also games disks, £2 per disk or £25 for Total 16 disks. **Tel 0722 322885.**

AMSTRAD 464 COLOUR MONITOR and loads of games plus two joysticks altogether worth £400 sell for £250. **Tel 0525 716239 and ask for Simon, 1 Tennyson Road, Flitwick, Bedford MK45 1QN.**

AMSTRAD CPC 6128 with colour monitor, joystick, tape connection, Protext Masterfile, manuals £125.00. **Phone Andrew Lyon 051 531 9643.**

AMSTRAD CPC664 DISK, colour Amstrad DMP1 printer, disks and manuals, Mini Office £160. Amstrad 464 colour tapes. Multiface 2, disk drive, covers, lots level 9 adventure tapes plus others. Sensible offers please. **Tel S Scott, 0209 842094.**

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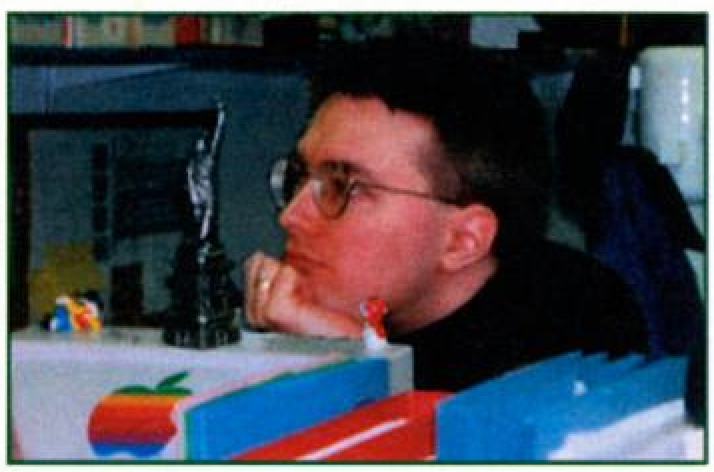
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Power Up

CHARTS right here, right now • GAME REVIEWS pages 45-50 • CHEAT MODE pages 54-57

If it helps, you can think of these pages as a place where we review games like Prehistorik II, Darkman and Skull & Crossbones. Hold on, a moment, that's exactly what they are. Tch.



Tim Norris

Tim's been a bit disappointed by events this month. He likes to play a few games now and then but Simon (aka The Hairy Happening) bagged them all as soon as they arrived. So poor old Tim's been stuck doing ed-type things for four weeks with no excitement to brighten his days. By way of showing his displeasure he baked some delicious shortbread and didn't bring any in for the others. That'll teach 'em.



Simon Forrester

The Hairy Happening has been a bit bored by the usual round of going to gigs and leaping about a lot and decided to spend some time at home. But how do you get rid of your flat mates? Just fetch out a guitar, a big amplifier and loads of effects pedals and say things like "let's make some noise" and apparently they run for miles. You don't actually have to play anything – just look as if you might – and you get the place to yourself for a couple of hours. Bliss.



Nick Aspell

Nick decided he ought to do some exercise, what with it being summer and all, so he went out for a ride on his bike. He was astonished to find that, despite all the effort he put in, he wasn't losing any weight. Then he realized the awful truth. "It was all the flies and bugs I was accidentally eating as I rode along," said the revolted Art Ed. "But at least I've changed the photos."

Well his job's safe for another month, then.

Reviewed this month

The hit parade

ELSPA PENGUIN CHARTS · COMPILED BY GALLUP
SPONSORED BY PENGUIN BISCUITS

1	Mini Office	Alternative
2	WWF Wrestlemania	H/Squad
3	Trivial Pursuit	H/Squad
4	Dizzy: Yolkfolk	C/Masters
5	Bubble Dizzy	C/Masters
6	Super S/Invaders	H/Squad
7	Final Fight	Kixx
8	Terminator 2	H/Squad
9	Turbo The Tortoise	Alternative
10	Miami Vice	H/Squad

Prehistorik

Titus ■ 071 700 2119 ■ Cass £10.99 ■ Disc £15.99



Simon dons his leopard skin caveman outfit, and goes clubbing it.

I've just bought a Wildhearts CD, you know. The music's really good, but I've got one problem with it. They've got a drummer called Bam Bam. That's right, Bam Bam. This is not something you call a child. 'And here's AA newie Bam Bam Forrester' – it just doesn't work. This is not a musician, it's a Flintstones character. *(Oh no, I see a really tacky link coming up. – Ed)* Speaking of the Flintstones, why is it that their cat (the one that kicks Fred out of the house in the ending sequence) never appears in the actual program? I lie awake at night thinking about this. *(I lie awake wondering why Fred doesn't just go back in through the window like the cat did. – Ed)*

Anyway, I loaded up *Prehistorik II* on a 6128 Plus (the game is slightly – emphasis on slightly – different on the two machine ranges) purely for the extra effects, sound, etc. Like last month's *Super Cauldron*, the game opens up with a sequence of little arrows, etc, to align the screen, select CRTC chips, etc, eliminating the problems that *Zap'T'Balls* had (the fact that the chances of it all working well on your machine are minimal).

Once you've dispensed with all the formal stuff, the title screen starts. Some beautifully blended colours create a prehistoric volcano, and lots of nicely drawn credit boxes belt round the place. In the background, there's a ripping little tune, with sampled guitars, a healthy bass line, and a nice drum beat. It's all in stereo, and beautifully arranged to make the most of the Pluses extra sound facilities. But that's just an intro screen...



And into the game. The first level opens with Prehistorik (imaginative name, huh?) standing around doing nothing. A strange bear-type thing claws its way out of the ground, and ambles up towards you. A quick flick of the fire button, and Rik pulls a club from his leopard skins and thrashes the bear clean across the screen. This has set the pace for the rest of this game. Thrash the bad guys, and don't get eaten. If one of the other hungry residents of Hungerland does get their hands on you, you'll lose one of the three energy points that make up a life. You start with three lives, by the way. However, when you do finally kill the wee beastie, his bones scatter about the place. Pick all these up, and you've got your energy point back. The various creatures have another use – by jumping on their heads, you can gain extra height in jump, also doubling the point bonus for squishing the thing afterwards.



I've always hated spiders. It all stems from one eating my granny when I was younger.

Add to the formula caves, passages, lifts, trap doors, moving floors, deadly spikes, sunset spells, mallets, battle axes, and a variety of other bits and pieces, and you've got *Prehistorik II.*

It must be the simplicity of this game that makes it so appealing – okay, you've got loads of different obstacles, bad guys, settings and locations, but in the end it's just a run-around-and-complete-all-the-levels-'em-up. It's simple. It requires no seriously taxing brain work, just a good reflex or two, and a head for exploration.

The baddies you will come across are varied. There are bears (probably the most irritating of all your adversaries), tortoises (who just plod about the place), birds (they just flap slowly and lazily around the sky, waiting to eat someone), sabre toothed tigers (with a penchant for leaping), spiders (who occasionally get off their little silky threads and go for you), wasps (very



If you leave the joystick alone, Rik just stands around. Here, he's doing just that.



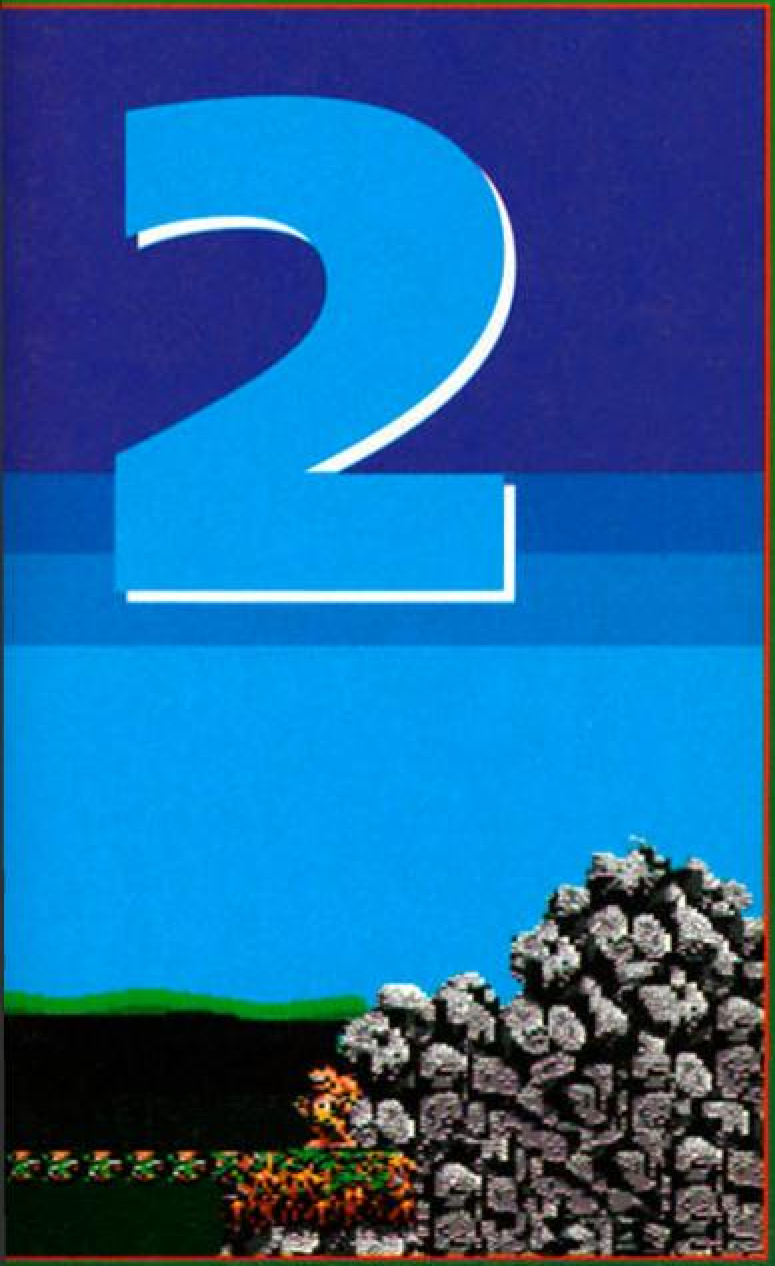
He could put his club through a bear's skull, but standing around is always much easier.

Versions

The one major thing to bear in mind when reading this review is that the game does play differently on a normal CPC than on a Plus. The differences are nothing major, and are more on the presentation side (a tune being slightly less impressive, and a few less colours), but the game plays just as well.

There is one feature on the normal CPC that seems to have been left out of the Plus version (for whatever reason), being the scrolling messages. You see, when you grab a load of fruit, etc, or when you knock off a particularly hefty bad guy, you'll get a huge faster message scrolling through the sky, giving various encouraging phrases (some of which are, to be honest, more than a little cheesy).

So if you've got a normal CPC, read this review anyway, and still consider buying the game – nothing changes but the presentation (which is still very good).





There are several places on the common or garden bird where you could fit a club...

dangerous), dragonflies (what can anyone possibly say about dragonflies?), huge gorillas (as an end of level baddie), lizards (well, sort of dinosaurs, really), and so much more.

The settings vary as well. From the star of the game, which is based in a rocky kind of place, through jungles, ice ages, etc. This variety in theme makes for a more entertaining game, and a much better marker of progress than levels themselves.

Of course, as with all games there are a few things that lessen the mind rush of wonder a little. One of these is a slightly small scroll margin. You see, there will be times when you'll drop down onto a platform, but the screen doesn't scroll quite well enough to allow you to see what's below you, to drop onto it. Unlike other faults though, this one does prove to be a little irritating, as the only way to explore sometimes is to die in the process. This is only occasional though, so don't end it all just yet.

Next fault, being bad guy regeneration. For instance, you can run up to a bear, and waste it, but straight after, another bear could come climbing out of the earth and take away vital health points. This is no fun. It would have been a lot better to have only one baddie appearing in any one place, and unforeseeable death is always a detraction for a game. This can be overcome, as it doesn't make the game less playable, just more difficult – you have to be permanently on your guard – but isn't that what arcade games are all about anyway?

It's at around about this time of the review that I go on to talk about the various qualities (and otherwise) of a game (usually the one I'm reviewing). Which brings us round to the subject of graphics. And a problem – I can't find any faults! You see, the graphics are excellent. Not just good, but truly excellent. Rik is the height of cute, with some fabulously cartoony poses. The bad guys all move well, with no speed loss when the screen fills up with them. The sprites are huge on occasion, with absolutely no flicker as they move quickly and smoothly around the screen. The scrolling has to be seen to be believed. The screen moves effortlessly about, keeping up with Rik, with absolutely no problem.

Sonically, *P2* is unsurpassed. The theme tune is outstanding, setting up that initial cute an bouncy theme that sticks throughout the game. Apparently, the music was created using an updated version of *Soundtrakker* (reviewed AA 92), which has the capacity for using sampled instruments in tunes. The in-game tune is a little less impressive (perhaps that's just as well), and so doesn't intrude on the game playing at all.

Sound effects are beautifully balanced. Noises all blend nicely together, and club-swishing mingles nicely with baddie-dying. The one thing you absolutely must do when you get this game (you will get this game) is wear headphones while playing. The whole thing turns into a wonderful sonic experience.

Grab factor. Flashy intro sequences aside, when you start up this game, all you see is a bloke, a landscape, and a bear. Fab. Wow. It's when you move the blokey and club your first bear that things really get addictive. *P2* has an instant appeal, that doesn't wear off.

You see, they've got the balance perfect with *P2*. Each time you play, you'll progress a little further, and each time you get a little further, you discover something new and exciting enough to make you come back for more time and time again. Also, you'll find yourself mastering the lower levels, and getting more and more proficient at wasting the bears, etc, with less scrapes.



So all in all, *P2* is a well balanced, nicely presented game. On playing it, you'll get slightly irritated by the odd thing, but not enough to make you bin the disc, and certainly not enough to impair the game in any major way. It's nice to see that Elmar's subject material has matured slightly since *Zap'T'Balls* (slightly tatty).



It's a known fact that some trees sprout platforms. This one sprouts cavemen as well.

What more can be said? It really is a great game, and well worth the price tag. It's been a while since we've seen many full pricers 'round these parts, but *Super Cauldron* and *Prehistorik II* more than make up for the drought. At the time of writing, Titus have not announced any more scheduled releases, but here's hoping we some more stuff from them fairly soon... ●

VERDICT

GRAPHICS — 92%
They're fab, but the normal CPC mode isn't quite as impressive as *Super Cauldron*. Fab nonetheless.

SONICS — 95%
The music is unbelievable, the sound effects are nicely created, and everything blends well.

GRAB FACTOR — 94%
From the moment you bring your club down onto that first bear's head, the game takes you over.

STAYING POWER — 93%
If you liked *Super Cauldron*, or you like console-style games, you really should take a look.

Hurrah!

RATING 96%

Darkman



Darkman rushes to the rescue when a bad guy collapses with acute appendicitis.

Hit Squad ■ £3.99 ■ 061 832 6633

It's dark, and there's this man, you see – wearing black, with a long coat fluttering around his legs. That's right, it's Simon, and he's reviewing Darkman.

Revenge – A once proud man now lives a nightmare. Revenge – The explosion. They may have removed his face, but they couldn't remove his anger. Revenge – Durant. Strack. These are the men of greed. They have taken his manhood, they have even taken his beloved Julie. Now it is Darkman who will take – the lives of Durant, Strack, and all who follow them. The time for mercy has passed. Now is the time for Darkman. The time for revenge.

In short, Peyton Westlake is having a bad day. He woke up with a complexion like T1000, and now someone's stolen his girlfriend. Don't worry – it's not a 'rescue the helpless bimbo' thang, she just thinks he's dead, that's all. He's had an acid facial, and not surprisingly, is a little riled by now. I feel a killing spree coming on...

Well, I would go on a bandaged mass murder special were it not for the fact that I've got to rewind to the start of side two and wait. And wait. And wait. But inevitably, the first level grinds into memory, and the curtains rise, Darkman standing centre stage. Enter blokes on either side, closing in and firing on Peyton. So you control the Darkster and rip their faces off, or something equally gruesome like that. You see, when you polish off yet another meaningless bad guy's life, they don't just vaporize. The Darkmeister punches them off their feet, until they slowly collapse to the floor. What fun!

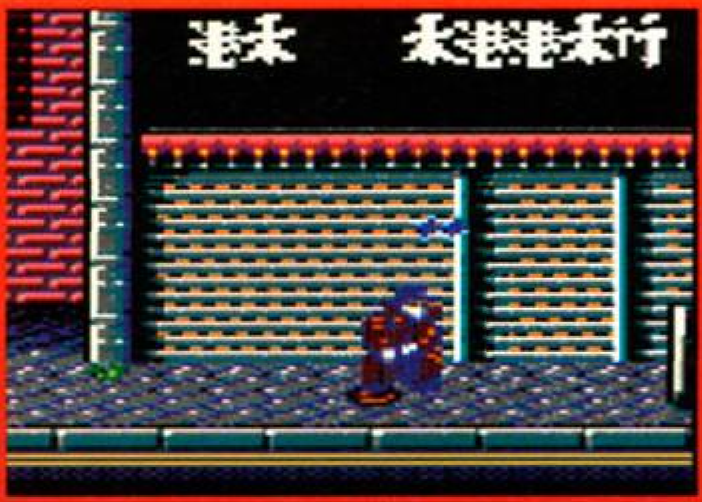
If you've ever seen the film, you'll realise just how badly plotted this game is. Just about the only 'man in trenchcoat putting his fist through bad guy's face' sequences happen at the very end of the film, and don't last very long at that.

What we have seen here is the interpretation of a film that could have been made into a much more fun, challenging, varied and entertaining time – they managed it with *Terminator 2*. We could have had puzzle sub games based on Peyton's experiments, the famous synapse sequence, a static screen beat-'em-up for the opening plot sequence (in which Peyton gets frazzled), and as a grand finale, have that scrolling part, but with a few bullets spraying down, the odd ladder, and a few walkways. This would get an absolutely wonderful review from me, and I'd probably feel suitably moved to give it a score somewhere in the nineties.

Sadly, the programmers didn't feel compelled to write anything other than a scrolling beat-'em-up, with very little else from the film. They did attempt to throw something together in the way of photographing people to imitate them, but if you even manage to find out how to use it, it'll be a small miracle. There are different stages, loosely based on the various scenes in the film – very loosely. You see, when you blow up the lab, there's a small army of bad guys to get past (scrolling beat-'em-up section), when you climb to the roof top, there's a small army of bad guys to waste (scrolling bet-'em-up section), and when you're jumping around roofs to avoid the helicopter, there's the evil henchmen trying to stop you (scrolling beat-'em-up section). What more can I say? It's a scrolling beat-'em-up game.

Look, this is getting to be a real problem – when *AA* is planned we set aside one page for each re-release, and two pages for something like *Prehistorik II*. In reviews like this, though, the system falls down. Planning a page for this review was okay, but we couldn't foresee *Darkman* being so mind-numbingly shallow that filling a page would be damned near impossible.

Much as I hate to, I suppose I'd better treat *Darkman* as a normal game arriving for review, and do a little round up of its good points. There's no sprite flicker, and it's good fun killing people for about the first five minutes, until the novelty completely wears off. There. With a bit of luck, that should just about fill the page. ●

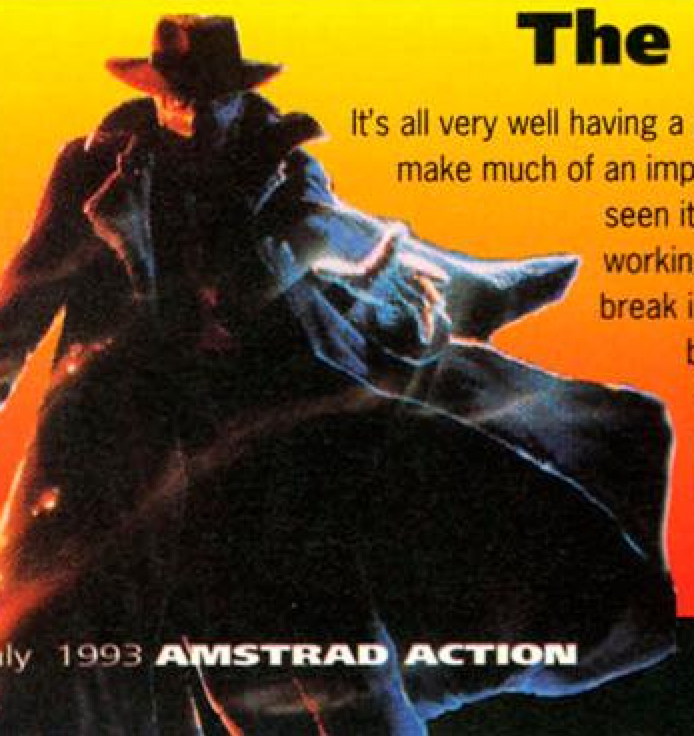


I'm sorry, but for the life of me I don't seem to remember any Ninja stars in the film.



Uh oh, Darkman. Look out for that pile of, er... And the bloke with the gun.

The Film



It's all very well having a game based on a film, but Darkman didn't really make much of an impression in the cinemas, did it? In case you haven't seen it, it's about a bloke (Peyton Westlake) who's working on a new workable synthetic skin. Bad guys break into the lab, and smash it up, giving him an acid bath and napalm enema while they're about it. Peyton then completes the new skin, rebuilds himself, and kills all the bad guys. Roll ending credits.

VERDICT

GRAPHICS 70%
Not the best in the world, but not quite as much of a chunderama as *Skull And Crossbones*.

SONICS 50%
The odd punching noise, but nothing special, or even vaguely interesting.

GRAB FACTOR 80%
It's fun to punch the bad guys' lights out for a while.

STAYING POWER 40%
Oh dear.

It's not a difficult decision to make. You might like it, but then I'd lay money that you won't.

RATING 50%

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Skull & Crossbones

Hit Squad ■ 061 832 6633 ■ £3.99

Gather round mateys, and let Simon, Son of Forrester, the Master Swordsman, and dog of the highest seas tell you of the places he's been, the faces he's seen, the armies he's slain, and the re-releases he's reviewed (doobedoo).

I think before we go any further into this review, I should mention something. People with no taste for colour shouldn't be allowed to design graphics for computer games – *S&C* looks hideous. I know that graphics shouldn't affect gameplay, but I draw the line here. Anyway, let's resume as normal.

Ooh ar me 'arties! Avast and astern! Land lubbers, etc. It be a game about sailing the oigh seas! Ooh arr yeah. So there's you, along with One Eye and Red Dog on a voyage to recover your treasure from an evil sorcerer. So off you stomp around ships, harbours, and planks and stab people with your sword.

You run onto the first level, sword drawn, dive into the swarming crowd of pirates, and begin hacking and slaying. The incredibly chivalrous pirates attack you one at a time (just like in all the best Errol Flynn films). Bumping off the bad guys (complete with head scarves) is a straightforward task that you could get the knack of in no time at all, so all that's left is collecting treasure, following ghosts, and being beaten up by salty sea-dogs.

And off we trot through level upon level of swashbuckling action, with our valiant hero (or heroine) defeating armies of people in strange blue hats. The one thing you will notice here, though, is the fact that they are separate levels. They take ages to load, you see. It's the second of this month's multi-loaders. Which means that all the sword swishing flitters away into the background compared with the cold steel feeling in your stomach when you see the words PRESS PLAY ON TAPE.

When I first loaded it, I expected it to be a fairly mediocre platformy killing thing. When it loaded, and the screen scrolled painfully about, I reached for the power switch thinking 'I'm really not in the mood today,' but for some reason I carried on. And though it takes an age to load, it really is quite fun.

This is where we find that vital lesson in gameplay – the loveliest graphics in the world won't automatically make a good game. Take *Death Chase* (on the Speccy) – it's got all the beauty of a dirty anorak, but it's unbelievably addictive. I think we can draw a similar conclusion here, really, except that the graphics aren't all that bad. They've just got some of the most garish colours the rainbow has to offer.

Sonics. Oh dear. You'd expect them to be passable. You'd expect them to be there. Bad luck – they're not. It seems incredible that someone would ever release a game in this day and age with absolutely no sound effects, but they have. Make of this what you may. I'm speechless. *(Hurrah. – Ed)* If we had a picture of me looking aghast, it'd be here somewhere.



A solitary pirate ambles up. a feeling of boredom runs, like icicles, down our spine.

And as for gameplay and grab factor, well... *Skull & Crossbones* is not what it appears to be. As far as grabbing goes, *S&C* weakly paws at you, and gives up dejectedly. But if you do manage to hold the contents of your stomach long enough to see a bit more of the game, you'll find it's really quite good fun. Granted, you probably won't be playing it for months and months, but for a budget re-release, you should be quite pleased with your buy. ●

VERDICT

GRAPHICS 60%
Moderate graphics, with bile inducing colours that may or may not turn you right off.

SONICS 10%
There's no sound, but if there was, you'd probably have to turn it down, so maybe it's a blessing.

GRAB FACTOR 65%
I think the less said the better...

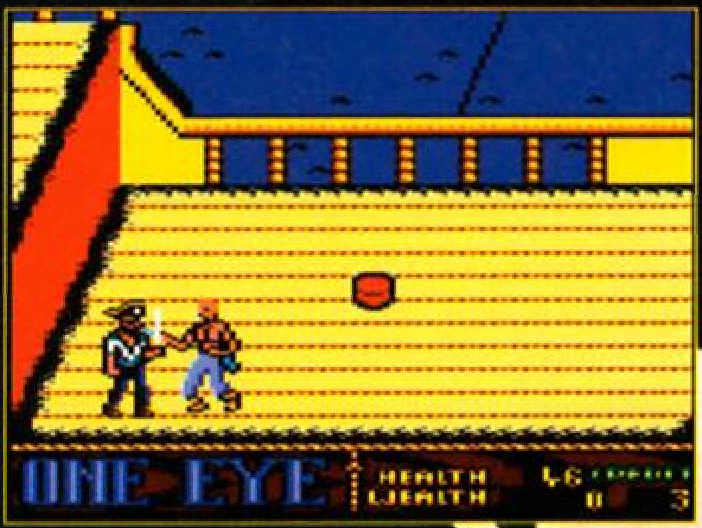
STAYING POWER 85%
It's creepy! You will actually notice yourself having rather a good time, but hey, weird world.

All in all it's been a strange day. I think I'll lie down for a bit now.

RATING 87%



Yes, yes, yes. That's all very swashbuckling, but will the damn game ever finish loading?



Another chivalrous pirate attacks you, while the others wait patiently for their turns.

Finding Keypresses

We thought it was about time we shared some of the arcane mysteries of game cheats. Here's veteran POKE-er, Lee Rouane.

Have you ever read lovingly through your monthly ***AA***, *(I always do. – Ed)* come across Cheat Mode, and looked jealously over the keypress cheats? Some people look with wonder and attempt to work out how anyone could have come up with the idea of pressing such a sublime combination of keys. This is a little misguided. What actually happens it that the budding hacker goes through the code, and finds the keypress cheat the other way round. Let me show you how it's done...

Have a quick look

First off, just in case, you might like to glance idly through the code by using a HackIt/Multiface, and searching for the letter E, for example. If you do come across any mysterious words, try either typing them in on the menu screen of the game in question, or holding down all the component keys at various points in the game. If this doesn't work, it means the guy who wrote the game had a little sense, and you'll have to resort to slightly more technical means.

Let's get technical

For the sake of an example, we're going to use the Multiface coupled with the Insider, and the one and only Hong Kong Phooey game. Without further ado let's load up the game, and hit the switch.

Firstly, we're going to search for a string of the byte `&FF`. I know it seems a little irrelevant right now, but all we become clear in time. All you need to know for now is to note down the addresses at which they occur.

Next, search for the bytes `ED, 49, 06, F4, ED,` and `78` (all in hexadecimal), which translates as follows:

```
OUT (C),C
LD B,&F4
IN A,(C)
```

This is a standard keyboard input routine. In our working example, we find it occurs at &040A. So let's look for the few bytes before that address, and see what they hold:

```
0704  11 0E 00      LD DE,&000E
0707  CD 88 04      CALL &0488
070A  11 F6 FF      LD DE,&FFF6
```

The byte to note in the above listing is at `&070A`. This tells you that the keyboard is being scanned, and the result is being held at `&FFF6`. This can be confirmed as the keyboard routine by looking back at the addresses of the ten `FF`s that you searched for earlier, and if `&FFF6` is one of them, then you have located the keyboard scan. Of course this can be the movement keys, but if we don't try, we'll never find anything – a bit of perseverance is what's needed here, methinks.

Right... It's about time we got





down to looking for the actual keypresses here, so off we trundle, and search for the bytes `CD, 04,` and `07` (which translates as `CALL &0704`, the jump to the routine we just found). You should, all going well, come up with a few address. Disassemble around the addresses, and you should find the following (alternatively, go straight to it, as we've just pointed it out):

```
80C2  CD0407  CALL &0704
80C5  3AFEFF  LD A, (&FFFE)
80C8  CB47    BIT 0,A
```

This is actually the menu routine. Now, one of the addresses here (with a little prayer), hopefully the `&FFF6`. *(You don't seem at all confident about this Lee – Si)* So now we know the programmer has used the bytes at `&FFF6` for a buffer (to store key presses). So now we need to construct a little diagram about that little row of bytes, that looks a little like this *(Well, exactly like this, really – Si)*:

Block	**0**	**1**	**2**	**3**
Address	**FFF6**	**FFF7**	**FFF8**	**FFF9**
Block	**4**	**5**	**6**	**7**
Address	**FFFA**	**FFFB**	**FFFC**	**FFFD**
Block	**8**	**9**		
Address	**FFFE**	**FFFF**		

Using the diagram you can now tell (hopefully!) that block 6 is located at `&FFFC` and so on. Now if you are not yet lost (I am!), lets start going through the code from `&80C2`. At `&80C2` a call is made to the start of the keyboard scan at `&0704`. At `&80C5`, a check is made if a key is pressed, and if it has, the result is stored at `&FFFE`. This is the best part – at `&80C8` it checks what key is being pressed, and to find this out, you multiply the block number by eight (always multiply by eight), and then add the key number to find out the key pressed.

Confused? Yes, frankly

Put another way, the address at `&80C5` is the one that you compare against your diagram, so `FFFE` would yield block number 8. The BIT 0,A at `&80C8` means that key 0 (BIT key, A) is being checked. So after a couple of sums we have Block 8*8+Key 0=64 and after a quick look at the manual, key number 64 is 1. So that means that we have found out where the number 1 in the options menu is checked. Good, eh?

Don't stop now...

Carry on down the listing doing this until you have found the three option keys (keys 1,2 and 3) being checked. At `&80DE` the main keypress is being checked for, but instead of using the BIT x,A method, the programmer changes style, *(Perhaps to prevent nosey hackers? – Si)* and he starts using the AND method to give the required key. The AND method is a bit more confusing, AND 01 checks key zero, AND 10 checks key four, AND 80 checks key seven etc..., but don't worry if you cannot understand how the key is worked out as I have provided a table below.

Key –	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
AND –	**1**	**2**	**4**	**8**	**10**	**20**	**40**	**80**

So `AND &10` would be key 4 and so on. Still with *Hong Kong Phooey*, carry on down the listing a few bytes more and the main keypress routine starts at `&80DE`. This is how the keypress is worked out :

Just routine

```
80DE  LD A,(FFFB)     : Block 5
80E1  AND &08         : Key 3 so block 5*8+ key
                        3= 43 = Y
80E3  JR NZ, &80BF    : If no key pressed
                        restart
80E5  LD A,(&FFFA)    : Block 4
80E8  AND &04         : Key 2 so block 4*8+ key
                        2= 34 = O
80EA  JR NZ, &80BF    :
80EC  LD A, (&FFFC)   : Block 6
80EF  AND &10         : Key 4 so block 6*8+ key
                        4= 52 = G
80F1  JR NZ,&80BF     :
80F3  LD A, (&FFFA)   : Block 4
80F6  AND &08         : Key 3 so block 4*8+ key
                        3= 35 = I
80F8  JR NZ,&80BF     : Restart
```

The code then carries on with other parts of the game, but as you can see the word Y,O,G,I has been found, and if you exit Tearaway, hold down these keys on the options screen, and, Eureka!! *(Phew! it worked! – Si)* You now have infinite lives. This replaces the keypress for this game that was widely known as T, H, U, G, and I. The reason that this keypress works as well is due to the keyboard matrix and the way the CPC works out what key is being pressed – some combinations of keys can reproduce the same effect as others. Anyway, I hope you found that useful, as the same principles we've seen here can be applied to many other games – not just *Hong Kong Phooey*. Cheerybye! ●

Cheat Mode

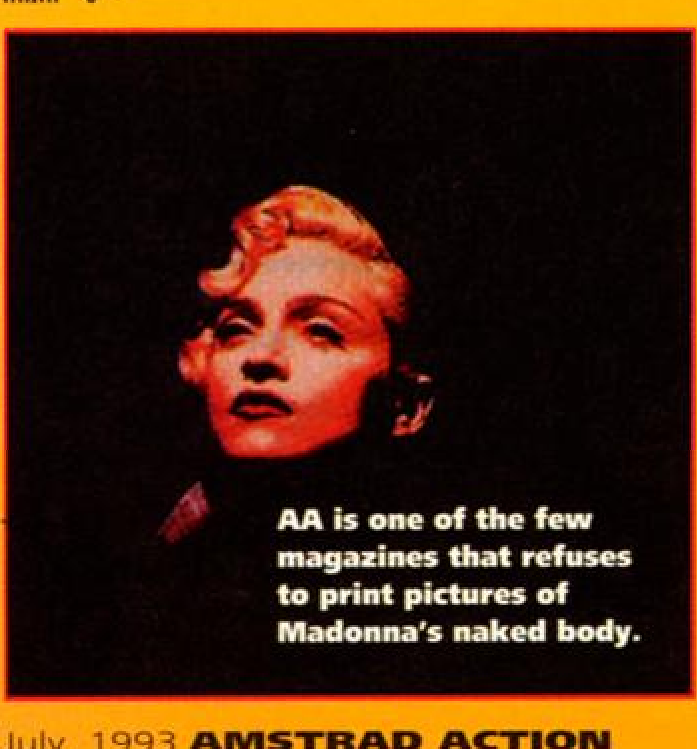
Looks like we're back in black (and white) with the POKEs chaps, forget the type-in pages and dust off your typing fingers 'cos here comes this month's batch..... Take it away buds.

Crystal Kingdom Dizzy

Graham Smith has kept up his end by supplying his usual batch of great POKEs, this time he has done a cheat for *Crystal Kingdom Dizzy* which gives infinite lives. There's also one for the AA87 Covertape game, *Nexor*.

```
NAKP  1·'Crystal·Kingdom·Dizzy-By·Graham·Smith
JAJA  10·DATA·21,09,be,22,9d,98,c3,00,98,cd,30
JAPD  20·DATA·fe,01,10,00,11,00,c0,21,1e,be,ed
JAGI  30·DATA·b0,21,00,c0,22,27,fe,c9,cd,30,fe
IALG  40·DATA·21,18,02,22,7c,92,21,30,fe,22,27
DACH  50·DATA·fe,c9·
IAMF  60·DEFSTR·a-e:FOR·j=&BE00·TO·&BE2D
IAKA  70·READ·a:POKE·j,VAL("&"+a$):NEXT
JAIL  80·a=STRING$(25,42):b="*"+STRING$(23,32)
      +"*"
HABL  90·PRINT"Infinite·lives
IAFG  100·PRINT"CRYSTAL·KINGDOM·DIZZY
PAPP  110·PRINT"Insert·game·tape":MEMORY·&7FFF
      :LOAD"":CALL·&BE00
```

```
LACM  1·'·AA87·cover·tape·by·Graham·Smith·····
PADC  2·'·works·on·tape·or·programs·saved·to·d
      isk
AAKH  3·'
```



AA is one of the few magazines that refuses to print pictures of Madonna's naked body.

```
MAOM  10·DATA·21,09,be,22,6f,87,c3,ea,80,af,32,
      f0,23,c3,b8,02
ABFB  20·DEFSTR·a-e:FOR·j=&BE00·TO·&BE0F:READ·
      a:POKE·j,VAL("&"+a$):NEXT
MALJ  30·c="-·Infinite·lives":d="Insert·game·"
PAHO  40·PRINT"Insert·game";:IF·PEEK(48247)=20
      7·THEN·PRINT"tape"
PAHA  50·GOTO·60·ELSE·PRINT"disc";"Press·any·k
      ey":CALL·&BB18
JAHH  60·MEMORY·&7777:LOAD"menu":CALL·&BE00·
```

Quattro Fighters

Dunstable's Andy Price has found yet another Quattro compilation to add his ever expanding list of conquests. This time its *Quattro Fighters* that gets the treatment (Andy tells me that he has yet another Quattro POKE in development for next month – so we'll look out forward to that) Meanwhile:

SAS Combat Simulator gets Infinite lives, grenades, less people and easier fighting.
Mig 29 gets infinite lives.
Guardian Angel you can pick the amount of lives you want.
Turbo Chopper gets infinite lives.

Turbo the Tortoise

In addition to these Andy has supplied a tape POKE for Turbo The Tortoise which supplies infinite lives.

```
LADI  1·'·Quattro·Fighters·Compilation
FADB  2·'·Codemasters
AAKH  3·'
HAAK  4·'·by·ANDY·PRICE,···31·Jan,·1993
AAMH  5·'
LAAI  10·MODE·1:LOCATE·12,1:PRINT"QUATTRO·FIGH
      TERS"
IADO  20·LOCATE·14,3:PRINT"by·ANDY·PRICE"
MAIK  30·LOCATE·5,7:PRINT"1.·Mig·29·Soviet·Fig
      hter"
KAGC  40·LOCATE·5,8:PRINT"2.·SAS·Combat·Sim"
KAFL  50·LOCATE·5,9:PRINT"3.·Guardian·Angel"
LADP  60·LOCATE·5,10:PRINT"4.·Turbo·Chopper·Si
      m"
MAON  70·LOCATE·5,12:INPUT"Enter·POKE·number:"
      ,ap
GACH  80·ON·ap·GOTO·110,260,580,440
DAPL  90·PRINT·CHR$(7)
CABH  100·GOTO·70
GAAI  110·DATA·2a,38,bd,e5,ac,e1
```



Oh, we do like to be beside the seaside. Especially in this lovely blue car. What is it?

```
GAKB  120·DATA·22,2b,be,ad,21,37
GAJC  130·DATA·bd,3e,c3,77,23,3e
FAAN  140·DATA·23,77,3e,be,23,77
FANE  150·DATA·21,40,00,e3,11,00
GAHH  160·DATA·bb,00,c3,4a,3a,af
FAFM  170·DATA·32,c8,08,32,f1,0c
FAIH  180·DATA·cf,00,00,00,00,00
DAEJ  185·RESTORE·110
FAII  190·FOR·x=&BE00·TO·&BE2C
FAJJ  200·READ·a$:a=VAL("&"+a$)
HAPO  210·POKE·x,a:chk=chk+a:NEXT
FAGH  230·MEMORY·&2FFF:LOAD""
CAPP  240·CALL·&BE00
HAIF  250·PRINT"Error·in·POKE"
FAEA  260·DATA·2A,38,BD,E5,AC
EAPO  270·DATA·E1,22,33,BE,AD
EAFO  280·DATA·21,37,BD,3E,C3
EADM  290·DATA·77,23,3E,23,77
EACN  300·DATA·3E,BE,23,77,21
EAMJ  310·DATA·40,00,E3,11,00
EACO  320·DATA·BB,00,C3,4A,3A
EAMN  330·DATA·3E,FF,32,86,32
EABN  340·DATA·32,8B,32,AF,32
FANA  350·DATA·AA,49,EE,38,AF
DAOL  360·DATA·cF,41,50
FALE  370·MEMORY·&3A00:LOAD""
DALJ  375·RESTORE·260
FAIM  380·FOR·ad=&BE00·TO·&BE34
FADK  390·READ·a$:a=VAL("&"+a$)
GAHJ  400·POKE·ad,a:c=c+a:NEXT
CAPP  420·CALL·&BE00
GAEF  430·PRINT"Error!!":STOP
FANC  440·MEMORY·&3A42:LOAD"
DAGJ  445·RESTORE·500
FAFG  450·FOR·a=&BE00·TO·&BE28
FAEK  460·READ·b$:b=VAL("&"+b$)
GAMD  470·c=c+b:POKE·a,b:NEXT
DAGA  490·CALL·&BE00
FADK  500·DATA·2A,38,BD,E5,AC,E1
FACH  510·DATA·22,27,BE,AD,21,37
FAMI  520·DATA·BD,3E,C3,77,23,3E
FACH  530·DATA·22,77,3E,BE,23,77
```

```
FAAD  540·DATA·21,40,00,E3,11,00
FAPJ  550·DATA·BB,C3,4A,3A,AF,32
EABP  560·DATA·DD,7D,CF,00,00
FABP  570·PRINT"DATA·error"
FABB  580·DATA·ED,5B,38,BD,D5
FAGA  590·DATA·AA,D1,ED,53,2D
EAAP  600·DATA·BE,A5,21,37,BD
EAKN  610·DATA·3E,C3,77,23,3E
EALN  620·DATA·25,77,3E,BE,23
EAAL  630·DATA·77,21,40,00,E3
EAAM  640·DATA·11,00,BB,00,C3
EAEN  650·DATA·4A,3A,3E,09,32
EAKN  660·DATA·6A,91,41,50,CF
FAMD  670·MEMORY·&3000:LOAD"!
DADK  675·RESTORE·580
FAFH  680·FOR·a=&BE00·TO·&BE2C
FADN  690·READ·p$:p=VAL("&"+p$)
GAAI  700·POKE·a,p:y=y+p:NEXT
IADO  720·INPUT"Number·of·lives";z
GAHE  730·POKE·&BE26,z:CALL·&BE00
HAAH  740·PRINT"DATA·error":STOP
```

Reckless Rufus

The codes for all the levels on Part 1 are :

LEVEL 11 – 4529
LEVEL 21 – 8769
LEVEL 31 – 6260
LEVEL 41 – 0942
LEVEL 51 – 3392
LEVEL 61 – 9744

The password to Part 2 of the game is – 2435

Baby Jo

Archie Fulton from Brae in Shetland has supplied the passwords to *Baby Jo*.
They are YOUPI, GLOUP and MUMMY.

Galactic Plague

Plus an age old tip for that bastion (have I spelled that right?) *(Yes. – Ed)* of Amstrad game-playing, which somehow seems to have evaded the cheat mode pages – *Galactic Plague* – Hold down R to advance a level.

Indiana Jones And The Last Crusade

Archie has also sent a cheat for *Indiana Jones And The Last Crusade* which has appeared before but so what, it's really good – On the title screen, hold down T O D (the border will flash) then during the game then hold down SHIFT+1 to return to the start of that level SHIFT+2 to advance to the next restart point SHIFT+3 to load the next level.

Thanks Arch.



This is Michael Aspell. Curiously enough, that's Nick's dad's name too.

Atom Ant

Meanwhile south of the border in Twyning (is that where the tea comes from) Antony (dead ant) Stanley has been playing with what else but *Atom Ant* and discovered a fine keypress:

On the title screen hold down the keys MONSTER and you will get a dose of invulnerability.

Ant also suggest that if you hold down fire whilst running on *Street Cred Football* you go faster!

Cerebus

Slightly further south still, in Allora Queensland Australia, Space Crusader Fraser Clark has discovered that on the game Cerebus if you hold down the keys KEVIN you will become invincible.

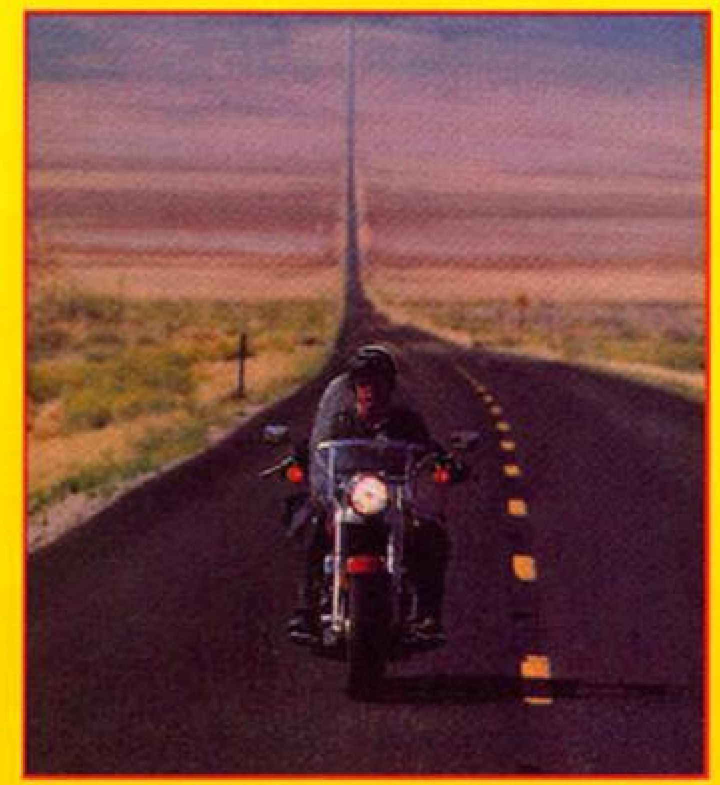
Space Crusade

Gary Lewis of 20 Lancaster Tce, CHESTER-LE-STREET Co Durham DH3 3NW. produces a fanzine called AM-COM and would like a mention for it. Obviously I can't use up vital Cheatmode space for that, so instead here is a cheat he's found for Space Crusade:

The marine with the assault cannon has an infinite re-fire option. If, when he fires, he fails to destroy the alien a re-fire option may come up. When it does, click onto your marine again and fire on the alien you didn't eliminate. A new set of numbers should come up. Keep repeating this option until you wipe out the alien. Also after you've done this (even if the re-fire option in the top right of the screen is gone the fire icon at the bottom should still be highlighted. You can blast the aliens as much as you like. You lose this when you end your turn, but can repeat the method on future turns.

Myth, History InThe Making

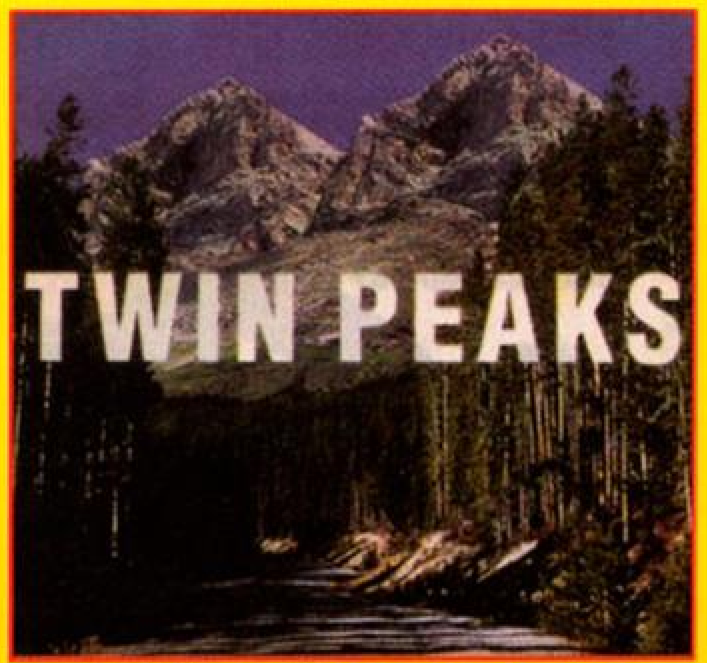
We like to help out when people ask for help with games especially, when the games they ask for are real goodies like *Myth, History In The Making*. Back in 1990 Kevin Hoy of Bootle sent us this solution to the game, and here it comes again for all you new history makers:



Here's a chap riding through the dessert on a Harley. No, sorry, that's 'desert'. Here's a chap riding through the desert on his dessert.

Stage 1: The Road to Hell

Kick the two jars on either side at the start and collect the contents.
- Go left, select fireball and shoot the hanging corpses.
- Smash the jars and collect the contents.
- Skeletons will drop from above, shoot them and collect the skulls.
- Go left and immediately shoot the gargoyle, use heart to protect yourself.
- When defeated, shoot the orb until it falls, then collect it.
- Go right shooting corpses and collecting articles.
- Use the heart when confronted by the gargoyle and move directly underneath.
- Select fireball then jump in between him spitting and shoot him.
- Fire at the orb until it falls then collect it.
- Go left and drop down.
- Go right, shoot the hanging corpses, go right and collect the orb.
- Go left shooting kicking and collecting all you find, and drop down.
- Make sure you have collected ten skulls then go left.
- Select skulls as your weapon and throw ten into the fiery pit, select fireball.
- The devil will rise, shoot him repeatedly until he explodes.
- A platform will appear, collect the trident and the orb.
- Go right collecting, and at a second fiery pit a platform will appear.
- Select the trident and go right, shoot the dragon repeatedly.
- Collect the key and move left, climbing upwards to the door.
- Select the key, the door will open, move through the door.
- Select the heart drop from the ledges and collect the orb.
- Go right out of the door and drop from the ledge.
- Go to the right, collect the master icon. →



Don't ask me mate, I only work here. I was out when they decided to use these pictures.

- Return to the start position (teleport pad) and select the master icon.

Stage 2: Greece 400BC

- Destroy the statue with your sword and collect the fireball and the orb.
- Ignore the jar then go right collecting articles as you go.
- Hit the statue of Achilles on the heel six times and collect the bag.
- (Now is this Achilles or is it Perseus?)
- Go right break the jar and chase the dove (extra life).
- Go right and cautiously move forward the lady will transform.
- When she does hide behind the pillar and wait for her to rise.
- Move left off the screen and back again she will have gone.
- Go right and collect a dove and an orb, then right again and collect a third.
- Move right and jump to the temple and kneel (left + fire + Sword Icon).
- You are transported to Medusa's . Protect yourself with your shield.
- Move forward cut off her head with the sword, select the bag.
- Collect Medusa's head then the orb.
- Go left then right to encounter the Hydra and select the Medusa head.
- Destroy the heads, collect the orb and return to the temple and kneel.
- Collect the master icon and return to the teleport pad.

Stage 3: Scandinavia 500AD

- Kill all the Vikings until one leaves a fireball, select it.
- Go right, collect the orb and get transported ashore.
- Jump up to the jar and collect the contents.
- Go left shoot the trolls and collect the knives.
- Keep moving left and collecting until you find the orb.
- Collect the lightning and the orb.
- Go right and climb the platforms to collect the scroll.
- Go right and use the scroll to make rain and put out the fire.
- Release the lady and she will reveal a key, collect it.
- Go right and collect the orb.
- Go right collecting and you will confront the dragon.
- Select the knives, get close between fiery breaths and destroy it.
- Move right and collect the orb.
- Go right and select the key to lower the drawbridge.
- Enter the castle and use the lightning to destroy Odin, shoot his feet.
- Collect the orb, go left collect the master icon in the forest.
- Return to the Teleport pad.

Stage 4: Egypt 3,000BC

- Don't enter the water, select the gun, go right and shoot twice.
- Enter the pyramid, go down the steps and drop off the ledge.
- Below there are four doors (1 nearest the wall and 4 farthest away).
- Enter door three first by crouching (same as kneeling in Greece).
- Jump across the pit and collect the mask from the chest.
- Jump over the spikes kick the jar and collect the gun.
- The floor is booby trapped so jump right and collect the ankh.
- Move to between the two sarcophagus' and select the ankh (extra lives).
- Return to the four doors and select door two.
- Watch out for falling slabs, collect the fireball and the gun.
- Move to the next screen and collect the orb.
- Move to the next screen and jump the pit, don't land on the first slab.
- Collect the eye from the chest, go to the next screen and get the jar.
- Return to the doors and enter number one, watch out for falling slabs.
- Collect the gun, move to the next screen and collect the orb.
- Carry on to the next screen collect the fireball and the second jar.
- Return to the doors, enter number three and jump left.
- Go to the next screen, collect the orb, and on to collect the third jar.
- Return to the doors and select number four.
- Avoiding spikes and falling slabs go to the next screen and collect the orb.
- Carry on walking right to the end of the room and collect the fourth jar.
- Return to the doors and the eye under door five should now be flashing.
- Select the eye and you will transport to a corridor.
- Shoot the mummies with your gun and walk right to the sarcophagus.
- Put down the jars, then enter the next room and select the mask.
- Fire at the face of King Tut and he will be destroyed.
- Collect the final orb, go back to the teleport
- That's it.

Multiface POKES

There has been a bit of a shortage of Multiface POKEs since the mammoth session a few months ago, but they are starting to appear again now... Here are a batch from Peter Curgenven of Trevone bay:

NAME	ADDR	POKE	EFFECT
Kettle	8EAD	00	Stops timer
Mr Freeze	7B69	00	Inf lives
Johny Quest	8883	00	Stops animals
Crys King Dizzy	A044	3A	Inf lives
Baby Jo (D)	1503	AA	Inf lives
Bosconian (T)	37D7	00	Inf lives
Oink (T)	4DF3	00	Inf lives
	4A98	35	Stops timer
Terramex (T)	6821	AA	Inf Lives
Robin Hood Legend Quest (T)			
	8D6E	3A	Inf lives (Hearts)
	A0F4	00	Inf lives (Numbers)

Microcosmica

And a bunch of Multiface POKEs for the game **Microcosmica** from Simon Avery from Chudleigh:

Microcosmica	659A	00	Stops days advancing
	659B	00	No landing tax
	74CC	FF	255 lasers
	74CD	FF	255 shields
	74CE	FF	255 exterior
	74CF	FF	255 interior
	74D0	FF	255 Mk 1 computer
	74D1	FF	255 Mk 2 computer
	74D2	FF	255 Mk 3 computer
	4DFA	FF	65,000 credits

Simon has also supplied a list of the items required by citizens of various galaxies:

Galaxy 3 – Rainbow door
Galaxy 4 – Weavers dream
Galaxy 5 – Roger's cash book
Galaxy 6 – Willigen's vortex
Galaxy 7 – New DMP 1 ribbon
Galaxy 8 – New 6502 boiler
Galaxy 9 – Red herring

Please send your cheats and stuff to the usual address and you might win a prize. ●

Poking Back

Keypresses might not be enough. Simon Forrester dusts off his POKEing fingers and goes looking for some other cheats.

So you've learnt how to search for keypress cheats. But what about the Multiface pokes? If you do actually have a game that wasn't listed in the huge Multiface feature in issue 90, or there's a new one just been bought out that you feel like taking on, here's how to go about it:

It's important that you know from the absolute start exactly how a game works when it comes to lives, time, and other stuff that counts downwards. In machine code, there are a few standard routines that are commonly used to decrease numbers – it's those that we're looking for. All we have to do is track down the routine that decreases the numbers.

So let's begin by taking a game that we all know and love, and more importantly, all have – *Chuckie Egg*. Yeah yeah yeah, I know it appeared in that issue, but I poked it hundreds of years ago, and I'm going to do it again. So load the game up, and off we jolly well go!

As you can see from playing the game, the main thing we want to stop counting down is the life counter. If we can achieve this, when you die, you won't actually lose the life, just start again.

And we're going to do pretty much this whole thing with only a search routine to keep us company – there are hundreds of utilities with search functions around, such as Multiface, HackIt, *Maxam*, and, well, you name it, really!

Right, reset your machine, and type the following:

```
MEMORY &7FFF
LOAD "CHUCKIE.BIN",&8000
```

This should have loaded the main game code into memory. I suppose, if you've got a Multiface or a HackIt, you can just run the game and freeze it, but if you haven't, that's how to load the game into memory and still have control over your machine.

So now we need the search routine. If you've got a BASIC program, then run it. If you've got a menu option, then select it. We're searching for the following bytes:

```
3A ?? ?? 3D 32 ?? ??
```

The question marks indicate mystery bytes (or wildcards), that we don't specify, because we don't know the address they're going to hold. The last two mystery bytes could, in effect, be left off altogether, but for the sake of understanding, don't knock them off just yet. Those numbers actually disassemble into the following:

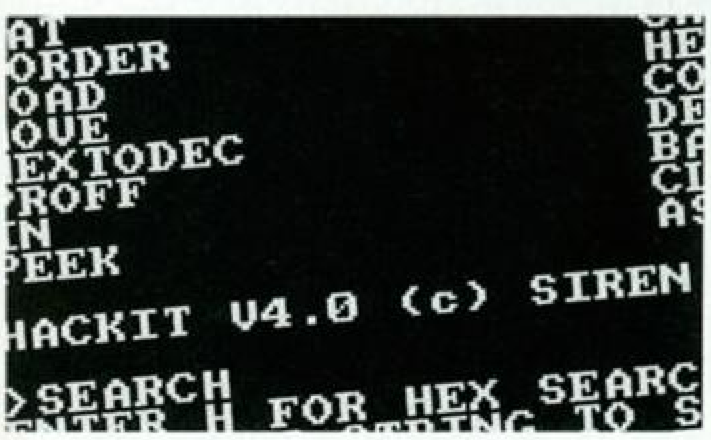
```
LD A,(addr)
DEC A
LD (addr),A
```

The number represented by the **addr** is actually the memory address that contains the life counter, so the value is loaded into **A**, decreased by one, and put back again. The easy way to kill that part of the program without upsetting the rest of it is to replace the **DEC A** instruction with a **NOP** (**n**o **op**eration) instruction. So now you have to sit and work your way through the list of bytes your searcher found, replacing each dec with a nop, and testing it, to see whether you have infinite lives.

Right – because we don't have the time or the patience to sit and go through each one in turn, I can now reveal to you that the offending routine is at **&9B58**

```
9B58  3A 5C 7B     LD A,(&7B5C)
9B5B  3D           DEC A
9B5C  32 5C 7B     LD (&7B5C),A
```

So to replace the **DEC A** with a **NOP**, we need to poke &9B5B with 0. And hey presto, there's your infinite lives poke! ●



Adapt And Survive

Of course, the routine we searched for in *Chuckie Egg* wasn't the only type of routine we can look for. If you're poking a game, and you don't have any joy with the routine, try looking for a few of the following:

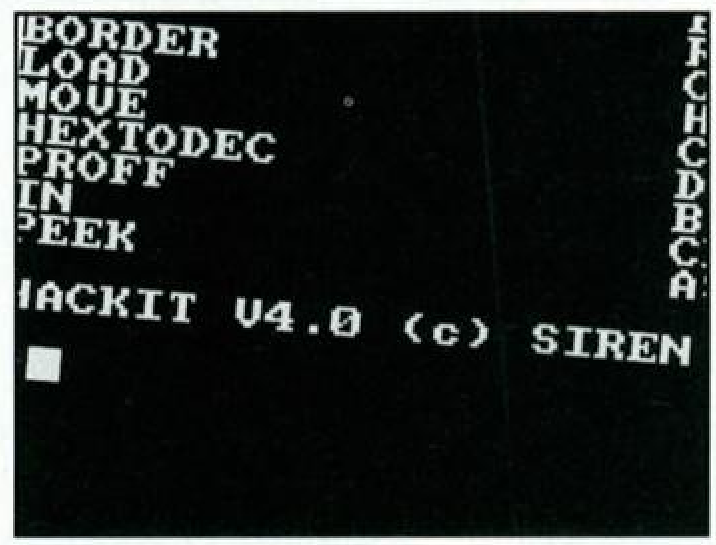
```
21 ?? ??  LD HL,addr
35        DEC (HL)

21 ?? ??  LD HL,addr
7E        LD A,(HL)
3D        DEC A
77        LD (HL),A

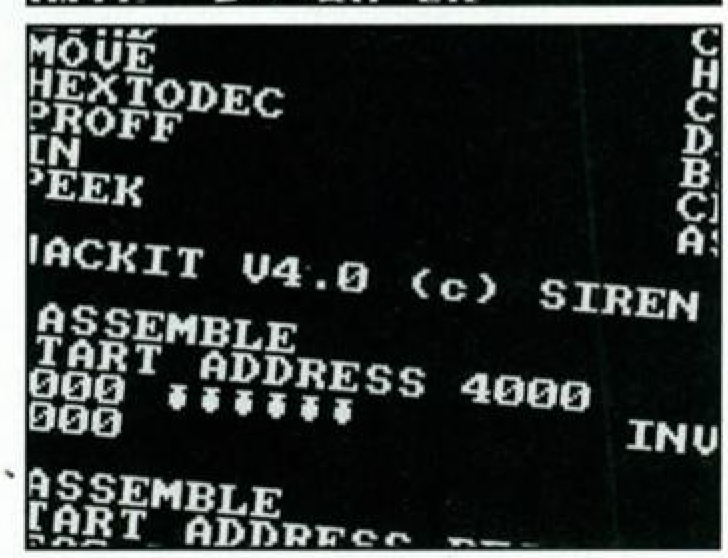
3A ?? ??  LD A,(addr)
D6 ?? SUB num
32 ?? ??  LD (addr),A
```

The number in italics, buy way, is the number to be replaced with 00, in order for the poke to work.











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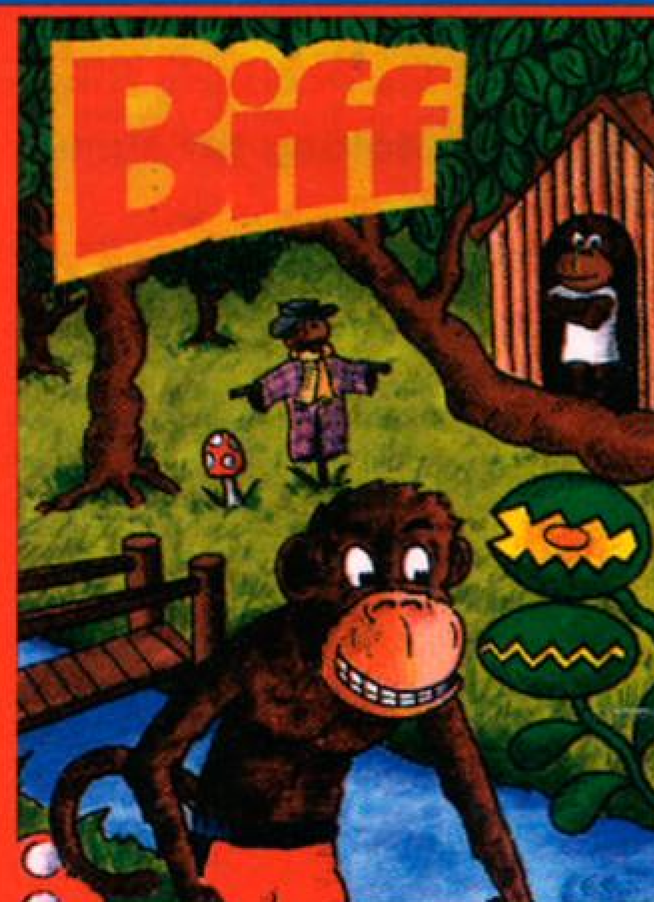
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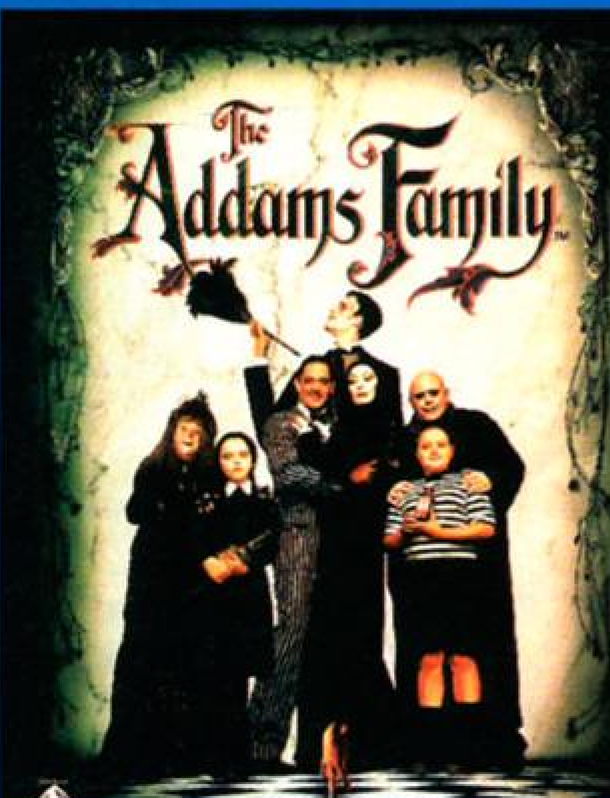
Next Month

At all good newsagents...

On The Tape

At the time of going to press, we can't reveal the serious package for you, but we can tell you that the B-side will almost definitely be a fab little game called *Biff*, featuring the adventures of a happy young individual called, funnily enough, Biff.





On The Lookout

As usual we'll be having the usual scout around for any new releases, and we can already tell you that one of these will be the budget re-release of *The Addams Family*. We may (emphasis on 'may') have a preview of *Street Fighter II* at some point.

On The Hot Spot

We talk to those wonderful chappies at Campursoft, and take a look at what they've got coming your way in the very near future – you may even get to see their fabulous new hard drive! Here's hoping!

On The Road

We'll be covering objects and puzzles next month in Venture Forth, so get your brain ready to be twisted in knots.

On The Hop

Cheat Mode returns in all its glory, with the regular selection of hints, tips, pokes and keypresses. So if your aliens just won't die, or your time keeps running out, we've got the poke for endless life, health, and the cure for gout. *(Oh dear. – Ed)*

On The Cheap

Public Image makes a fabulous comeback with even more goodies to fill your discs, and keep you entertained for yet another month.

August issue on sale July 22nd

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